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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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DETROIT RIVER--ST. CLAIR FLATS CANAL.

In his annual report for the last fiscal year, just made public, Gen. John M Wilson, chief of engineers, says that Col. Lydecker's report on the survey of the St. Clair Flats canal, with a view to doubling its capacity, will be laid before Congress at the beginning of its next session.

"It is sufficient to state," says Gen. Wilson, that the report will indicate that prompt action in the direction above indicated is all important to the safety and convenience of the vast commerce of the Great Lakes. Traffic through the canal during the navigation period of the calendar year 1899—a period of nine months only—included the passage of about 40,000,000 tons of freight, but we have no data to estimate, even approximately, the extent of passenger traffic."

As to the improvement of Detroit river the report says that "the surveys called for by the act of March 3, 1899, were completed during last winter, and preliminary report, with plans and estimates for securing a safe and convenient channel twenty-one feet deep, was submitted to Congress. Projects were thereupon adopted for increasing the width of the channel at Limekiln Crossing to 600 feet, and deepening it so as to provide a clear depth of twenty-one feet at ordinary low water; also to make a channel of the same width and depth through the Ballard's reef section. Contract for the work on the Limekiln channel was entered into May 18 and work was commenced June 23, 1900, by drilling and blasting bed rock. Up to the end of the year 413 blast holes, aggregating 2,197 feet in depth, had been drilled, and 2,087 pounds of dynamite used in blasting, but none of the broken rock had been taken out up to date. The area covered by this drilling and blasting measures 1,500 square yards. No work had been commenced on the Ballard's reef channel, but an advertisement inviting proposals was published May 29, 1900, bids opened June 13 and a contract duly entered into July 3.

"Work was in progress from April to June 30, by hired labor, with derrick and scow and diving outfit, the object of which was to remove bowlders from the channel below Limekiln Crossing; the number of bowlders taken out was 780, aggregating 543 tons in weight. This work was scattered over an area measuring 66,200 square yards, and its result was to provide a clear depth of 20 feet where a limiting depth of only 18 feet previously existed.

"It is probable that work on this improvement under the contracts already made and others that will be made during the current year, together with such work as will be done by hired labor and plant operated by the government, will call for an expenditure of not less than $500,000 up to June, 30, 1902; the amount now available is, in round numbers, $300,000. An estimate of $200,000 additional is therefore submitted for the year 1902.

"The commerce that passed through the river during the calendar year 1899 has been estimated as about 40,000,000 of freight tons, but it should be observed that the information on which the estimate is based is quite unsatisfactory, as it has been impossible to obtain accurate statistics having special reference to traffic through the Detroit river from the custom house records or any other official or private source. It is deduced, however, from a careful consideration of all custom records on the upper and lower lakes, and indicates an increase of about 10,000,000 tons in the past five years.

NAVAL SHIPBUILDING.

A contributor to the Army and Navy Journal who signs himself "Navy," gives in that journal some facts that go to show some of the features in which navy yard work differs so radically from similar work carried on in private establishments. Taking a typical navy yard he shows that in it each of the seven bureau chiefs at Washington has his representative at the head of a series of shops and storehouses, each with its foreman, instead of having one set of shops and one foreman. Thus, at one yard, there is a machine shop for ordnance, another for construction purposes, a third for the steam engineering department, a fourth for the equipment department, and a fifth for the yards and docks department. In all, he finds that one navy yard has sixty foremen where but thirteen are needed, and that twelve navy yards and stations have four hundred and fifty more foremen than are necessary. Counting in the clerks, draughtsmen, and quartermen who could be spared by a consolidation, "Navy" finds that $1,872,000 could be saved on labor alone. Adding the interest on moneys needlessly invested in duplicating machinery and shops and on renewals, he finds that $3,000,000 could be saved each year—"enough to build a battleship."

This, however, is indirect loss only besides which there is the loss by waste which results from several departments working at the same time without a controlling head to see that there is prompt and proper co-operation. It frequently occurs, for instance, that bulkheads have to be torn out after having been built, or that openings for the replacing of machinery are closed before the latter has been put back. The most ridiculous system of all is pronounced by "Navy" to be the method of guarding stores and material, under which a workman wastes endless time if he requires half a dozen screws. Furthermore, the stores are purchased by paymasters, who have no technical knowledge of the tools required, and as a result of these cumbrous methods thousands of dollars' worth of material had to be bought without warrant of law during the war with Spain.

CONSUL SMITH writes from Moscow, September 12, 1900, that in March last the Russian government decided to construct new dry docks in Vladivostock, which will be capable of admitting ships of 700 feet in length. The excavations for these docks are now being started. Near the docks will be constructed two large metallic shipbuilding yards capable of turning out ships up to 3,000 tons. The old dock, the "Tsarevitch," is being rebuilt, and six new boilers have been ordered therefor. The work is superintended by Military Engineer Savitzky, with three assistants. The government has also decided to construct and equip 60 new mechanical shops.

REPORT OF CHIEF OF ENGINEERS U. S. A.

The annual report of J. M. Wilson, Chief of Engineers, treats at length of the river and harbor improvements of the country, for which estimates for the fiscal year ending 1902, aggregating $20,000,000, are submitted, to which are added $200,000 for surveys and contingencies, $3,890,000 for the Mississippi river commission, $1,040,000 under the Misssouri river commission, $15,000 under the California debris commission, and $72,800 to prevent deposits in New York harbor.

The expenditures for the year ending 1900 were $18,485,298, which does not include $125,000 paid the Eads estate for maintaining the jetties at the month of the Mississippi, and $61,000 for surveys and examinations for a canal from the Great Lakes to the Atlantic. The report is a review of all the work done during the fiscal year, and refers especially to a number of important subjects, including the Chicago drainage channel, Pearl harbor, Hawaii, and the proposed memorial bridge to connect Washington and Arlington. Of the Chicago drainage project the report says that all the interests affected cannot be satisfied and the subject must be referred to Congress for ultimate settlement. As to the lowering of the water level of the lakes, General Wilson says that investigations made under the direction of the deep-water way commission and by others may furnish data upon which further consideration of the question may be based.

The estimates for the river and harbor work on and about the Great Lakes next year are as follows:

Harbor at Duluth, Minn., and Superior, Wis.	$ 320,000
Ashland harbor, Wisconsin	40,00
Waterway across Keweenaw point, from Keweenaw bay to Lake Superior, Mich	155,000
Marquette harbor, Michigan	54,500
Harbor of refuge, Grand Marais, Mich	470,000
Sturgeon bay and Lake Michigan ship canal	25,000
Sheboygan harbor, Wisconsin	48,000
Harbor of refuge, Milwaukee, Wisconsin	119,000
Milwaukee harbor	51,000
Chicago harbor, Illinois	100,000
Chicago river, Illinois	75,000
Calumet harbor, Illinois	30,000
Calumet river, Illinois and Indiana	60,000
Fox river, Wisconsin	50,000
Illinois river, Illinois	60,000
Illinois and Mississippi canal, Illinois	1,000,000
Michigan City harbor, Indiana	48,000
St. Joseph's harbor, Michigan	53,000
Kalamazoo river, Michigan	175,000
Holland harbor, Michigan	73,000
Grand river, Michigan	175,000
Muskegon harbor, Michigan	55,200
White Lake harbor, Michigan	27,500
Ludington harbor, Michigan	69,300
Manistee harbor, Michigan	42,000
Harbor of refuge at Portage Lake, Mich	40,000
Frankfort harbor, Michigan	54,500
Petoskey harbor, Michigan	25,000
Saginaw river, Michigan	37,500
Detroit river, Michigan	200,000
Toledo harbor, Ohio	250,000
Sandusky harbor, Ohio	125,000
Huron harbor, Ohio	50,000
Black river harbor, Ohio	150,000
Cleveland harbor, Ohio	160,300
Fairport river, Ohio	210,000
Ashtabula harbor, Ohio	210,000
Erie harbor, Pennsylvania	125,000
Conneaut harbor, Ohio	210,000
Buffalo harbor, New York	250,000
Tonawanda harbor and Niagara river, New York	164,000
Niagara river from Tonawanda to Port Day	26,000
Oswego harbor, New York	160,000
Cape Vincent harbor, New York	50,000

THE steamer Colonial was released Sunday from the shoal in St. Marys river and was taken to Sault Ste. Marie for temporary repairs and further survey.

CLEVELAND.

Special Correspondence to The Marine Record.

The lumber rate from the head of the lakes is now quoted at $3 per M. feet with fairly brisk chartering.

Coal cargoes are now easier to obtain than a few days ago, and chartering is rather brisk except to Lake Superior.

Capt. Chapman, superintendent of the tenth district of the United States life-saving service, inspected the new station on Monday.

The Coralia and Corsica dry docked this week. It is stated that the latter boat will be placed in winter quarters after repairs are made.

The winter fleet is already accumlating at Lorain, and it is likely that a large number of craft will seek that good and safe port for winter moorings.

The steamer John J. Albright, building for the Etna Steamship Co., of which Capt. John Mitchell is manager, will be launched Saturday morning.

The 16-ton rudder for the battleship Maine, now in course of construction at Cramps' yards, Philadelphia, was sent away from here this week on a canal barge.

That $3 rate on lumber is not very firmly established. Vessels ask that figure to charter, shippers offer $2.50, and a compromise of $2.75 is being accepted from the head of the lakes.

Quite a number of boats will lay up for the winter this week. Insurance rates are higher in November and freights are away down so that there is nothing to be made any way that an owner of floating property can figure.

The independent or Maytham tugs are hustling for work with the three powerful tugs at this port. A contract for several new steel tugs is on the tapis, and next season will see some close competition in the towing business at all lake ports.

Extensive improvements are being planned for the steamers State of Ohio and State New York. Speed as well as passenger accommodations will be increased for next season. The City of the Straits will be placed on the Cleveland-Buffalo route.

The steamer Ishpeming ran into the abutment of the Superior street viaduct on Tuesday and did some damage. The casualty was due to the bridge-tenders, and the city will no doubt have to foot the bill of expenses. She will be dry docked for repairs.

A meeting over the different locals in the International Longshoremen's Association will be held here Friday for the purpose of organizing a district council. There are thirteen locals in Cleveland and the locals at Lorain, Fairport and Ashtabula will be taken in.

The coal handlers' strike on three docks operated by the Pittsburg Coal Co. was settled on Tuesday afternoon and the men returned to work. A meeting of the officials of the longshoremen's union was held at the office of dock manager John A. Donaldson and a settlement was reached without much trouble.

The new steel steamer Eureka, owned by the Hawgood firm of this city, reached New York all well on Wednesday after a passage of nine days. The steamer Tampico will also reach there in a few days. Charters already fixed seem to offer fair earnings for the winter months. The Messrs. Hawgood deserve great credit for their pioneer work in this direction.

The Cleveland & Buffalo Transit Co. makes the announcement that the annual autumn excursion will be run to Buffalo and Niagara Falls on Saturday night. The company has been offering low rates for two or three weeks past. Now they have dropped a third of that price for the trip to Buffalo for next week, holding the same rate to Niagara Falls. The prospects are for a big business.

A visit made by President Brown, of Chicago, to the Cleveland headquarters of the American Ship Building Co., a few days ago, was the cause of a report that more vessels were to be built for coast service, but it was learned that Mr. Brown's trip to Cleveland was for the puprose cf attending a meeting of the Executive Board of the company at which no business of public importance was transacted.

Mr. Charles Maytham, the Buffalo tug owner, who has been in the city this week has secured offices at the corner of the dock and Front street, where the office of the Cleveland Tug Co. was formerly located. Louis Lautenslager of Buffalo, who is to look after the interests of the Maythams at this port, takes charge. He said that for the present the tugs Frank W. and Delta will be operated by the independ- line and that the tug A. Maxwell will probably be located at Lorain.

The attorneys for Capt. Holmes, who is charged with manslaughter in the United States Circuit Court ask permission to withdraw his plea of not guilty. They propose to file a demurrer to the indictment, claiming the law under which the indictment is drawn applies only to steam vessels. Capt. Holmes was the captain of the yacht Idler, which sank during a squall on Lake Erie in july, drowning six members of the Corrigan family. Should the demurrer be sustained, the charge against the captain would be thrown out of court.

The coal situation has not changed. The market is still flooded with tonnage, consequently the rates are weak. Hard coal has commenced to move slowly from Buffalo, the reserve being shipped, but the large movements are not expected until the first of next week, or later. There will hardly be enough of this to change the rates, although it may make the market stronger and prolong the season and keep a number of boats out of winter quarters. The ore movement has about ended for the year, saving only that amount of material that is to be brought down by the contract tonnage from Lake Michigan. The grain trade is not living up to expectations and promises to be lighter after the first of November than had been looked for.

It will cost, according to an estimate made by Col. Jared A. Smith, the United States engineer in charge of rivers and harbors on Lake Erie, $353,000 to complete the present projected extension and improvement of the Cleveland breakwater. On July 1, 1900, the beginning of the present fiscal year, there was an unexpected balance of $515,463.93 in the Treasury in favor of Cleveland; $23,556.02 represented the outstanding liabilities, and $569,678.65 was the amount covered by uncompleted contracts on that date. In addition to the balance which remained unexpended on July 1, Colonel Smith estimates that $100,000 can be expended profitably on the breakwater and harbor improvements during the next fiscal year, which begins July 1, 1901; in other words, he has recommended to the War Department that the latter sum be appropriated by Congress at its coming session. To complete the work of dredging the harbor at Cleveland to a depth of 21 feet it will cost, the engineer estimates, $160,300, and he recommends that this sum, too, be made available for expenditure.

CHICAGO.

Special Correspondence to The Marine Record.

There is quite a talk about laying up for the winter as freights are very low and chartering slack.

The week opened with rates strong on 1½ cents on corn and brisk chartering was done at that figure.

A Chicago steel firm is filling an order for 2,000 tons of 45-lb. steel rails, which is to be delivered at Genoa, Italy, for an Italian railway.

Supervising Inspector General of Steamboats James A. Dumont, and Supervising Inspector Westcott, are now making a tour of the lakes, looking over the steamboat inspection service.

Frank Ranson, aged thirty-five, steward on the steamer Seneca, fell into the river at Milwaukee on Thursday night last, and was drowned. He lived at Buffalo and leaves a family.

The Barry Bros. are nothing if not aggressive. They now figure on keeping an open route to Muskegon all winter, if Chicago and Muskegon will pull together so as to pay the expenses.

This port and Milwaukee will have their full share of coal this winter but it is a different question regarding the head of the lakes. Vessels don't want to take coal up there just as ballast and then get neither iron ore nor grain back and that is the outlook at present.

The steamer F. E. Spinner, recently sunk by collision in the St. Mary's river, arrived safely at Manitowoc, on Tuesday, under her own power. She is badly damaged, and will be docked on Friday for survey and repairs. The bow must be built in, and much other work done.

The schooner May Richards, which was recently on the rocks at Manistique, has reached Manitowoc in tow of the Rube Richards, and was docked for repairs. She will need a new keel, forty feet of garbord, planking and much recalking. The total bill will be nearly $1,200.

Vessels in the grain trade were in brisk demand for loading this month. Rates were strong at 1½ cents on corn, and a good business is being done. How the November rates will turn out is still a question, but it is generally predicted that they will improve on present figures.

President Graham, of the Graham and Morton line, announced that the contract for a passenger steamer for the line would be let next March. The boat is to be for day service only, with a capacity of 4,000 persons. She will be given a speed of twenty miles an hour and will be 260 feet in length.

Three divers and two diving outfits were sent to Detroit, on Monday, by the Dunham Towing and Wrecking Co., on telegraphic orders from General Manager Collier, for raising the Martha. Capt. Thomas Johnson went to Detroit Saturday night, and is now in charge of the work of wrecking the big boat.

H. J. McCarthey, late chief steward of the Goodrich Line, is now with the Santa Fe Railroad. His associates presented him with a beautiful gold locket and guard as a mark of their esteem, and they wish him every success in his new sphere. Mr. C. B. Hamilton leaves the steamer Georgia to assume the duties of chief steward. He has had ample experience to qualify him for the post.

To close October shipments there was some heavy chartering this week. On Wednesday 1,795,173 bushels of grain were shipped, of which 902,253 bushels was corn and 596,520 oats. There were unusually big cargoes in the list. The new steamer Capt. Thomas Wilson, was down for 250,000 bushels of corn, and the Rockefeller steamer General Poe took 79,000 bushels of wheat and 299,000 bushels of oats.

The Ann Arbor boats will make Menominee all winter. Capt. Boynton, of Sault Ste. Marie, has entered into a contract with the Ann Arbor railroad to keep the channel open through the ice between that port and Sturgeon Bay, with the ice crusher Algomah. In case of failure to keep the channel open, he is to receive nothing for the service. Car ferry No. 3 will be used. The Algomah is now being refitted for the service.

Collector of Customs William Penn Nixon has appointed Edwin P. Mann and Roscoe Wilcox, inspectors on duty at the barge office, as deputy collectors for the purpose of entering and clearing vessels. Deputy Collector James M. Nash will remain in charge of the office. Hereafter vessel captains will report and clear at the main office in the Manhattan building, between 9 and 4 p. m., and during the rest of the day at the barge office.

Marine men felt deep regret at the accidental death of Frank Carpenter, the member of the Nye-Jenks Co , who attended to its shipping on the floor of the Board of Trade. In the handling of the firm's shipping business Mr. Carpenter often went out of his way to supply cargoes in dull times, and his death will be a serious loss to the vessel interests. Mr. Carpenter was also well-liked socially, and it is said that he always tried to do the best he could for his fellowman.

The canal boat First National was struck by the steamer Andaste in the river on Tuesday night, and 1,000 bushels of her wheat cargo were wet and probably ruined. The efforts of tugs with siphons were all that saved the canaler from sinking. The First National was lying at the Norton mills, at Madison street bridge, loading grain, and the Andaste was bound toward the lake. She sagged against the canal boat and squeezed the craft so hard that a leak was started.

The Canada-Atlantic Transit Co. is now in position to make shipments of grain and package freight to Europe via Quebec. The Great Northern railway, connecting Quebec with Parry Sound on Georgian Bay, has been completed. The first train from Quebec to Depot Harbor was sent over the line this week, and the first grain shipment from Depot Harbor will, in all probability, reach Quebec in time for ocean shipment on Wednesday. Montreal is expected to experience a curtailment of business following the opening of the Quebec route.

The contract for raising the sunken barge Martha, in the channel in Lake St. Clair, has been given the Great Lakes Towing Co. Oscar Anderson, watchman on the Martha, says the Wilbur was racing with the steamer Troy at the time of the collision. As the Troy was to port, the Wilbur could not go over and avoid the collision. Capt. Kerr, it is said, agrees with this explanation. The cost of docking and repairing the Wilbur is now given at $10,000. It will take 10 days to do the work. The cargo of merchandise is being transferred to the Tuscarora, of the same line, which will take it to Chicago.

A Duluth owner of lake lumber boat tonnage says that shipers representing about 20,000,000 feet of boards at Duluth and Ashland, are in the market for boats at $2.50. The boards represent about twenty-five cargoes, and the vesselman says the shippers are not readily getting tonnage, though he thinks they may be able to cover it at the rate. There is other lumber besides these particular blocks which will be in the market for boats, and the vesselmen consider that the outlook for the balance of the season is favorable for advancing rates. The rail rate of 10 cents a hundred invites shippers of lumber to Chicago, however, when the rate goes above $2.50.

A decision important to vesselmen at all lake ports has been made by Judge Chetlain in the Circuit Court. He upholds the $2,500,000 bond issue of the drainage canal trustees, and holds that the sanitary board has jurisdiction over the Chicago river as part of the drainage canal. The decision is of great importance as it will, if sustained by the Supreme Court, enable the drainage trustees to unite with the city in river improvement. There is little fear that the judge's ruling will meet with the approval of the Supreme Court, and in that event vesselmen may hope for an earlier completion of the improvements so necessary in the river, than expected. The case will be taken to Springfield, an appeal from the decision having been prayed. A final decision is expected to follow soon after in the case, and the drainage trustees will in all likelihood find themselves invested with additional powers. Marine men will be interested in the outcome of the case, as a favorable result will be followed with a clear field for work in imporving the river. A current will be given with a certain speed at all points, and everything possible done to make the interests of the city and the vesselmen harmonize. One of the first important moves will probably be the removal of the center piers and the substitution of bascule bridges. Many of such structures were planned a few months ago, but for various reasons the number was reduced to two or three. The city's appropriation for bridges was cut down so that there will not be much more than enough to pay the repair bills during the coming year.

DETROIT.

Special Correspondence to the Marine Record.

The steamer Nipigon dry-docked this week for general overhauling and repairs.

The steamer Ed Smith No. 2 burnt on Lake Erie and since rebuilt at Port Huron is to have her name changed to Zillah.

Col. Lydecker warns up-bound boats to check or stop at the wreck of the Martha so as not to meet down-bound boats at that spot.

The Great Lakes Towing Co. has secured the contract for raising the steel schooner Martha, sunk by the steamer E. P. Wilbur in Lake St. Clair.

The wreck of the Leader, above Belle Isle, has been entirely removed by the wreckers. A dredge will take out any timbers that may be imbedded in the bottom, completely clearing the channel. The cargo of 500 tons of coal has been abandoned.

It now looks as if the race between the White Star liner Tashmoo and the boats of the Cleveland & Buffalo line is certain. A. A. Parker has deposited his $1,000 with Stakeholder Westcott. Manager Neman of the C. & B. line put up his $1,000 some time ago.

Mr. A. A. Parker, managing owner of the speedy White Star Line steamer Tashmoo has placed $1,000 against T. F. Newman manager of the C. & B. Line that the Tashmoo can walk away from any boat in this line. The test will occur next season. Mr. Newman challenged and Mr. Parker accepted the terms.

The Wilbur is being repaired at the Detroit Dry Dock Co. The repairs, with the cost of docking, an agent of the underwriters said to-day, would cost $10,000, and it will require ten days to do the work. The cargo of general merchandise on board the Wilbur for Chicago has been transfered to the Tuscarora.

The Canadian department of marine and fisheries is soliciting tenders for the maintenance of a lightship on Southeast shoal, from about Nov. 10 until the close of navigation. This action is taken in consequence of inability to sink the middle-ground pier this fall. The lightship will be more reliable than a gas buoy and can be kept out later.

Wrecking and salvage companies will soon get sore on submitting figures for work if they are to be treated as in the case of raising the steel schooner, or tow barge, Martha. The manager for Pickands, Mather & Co., Cleveland, accepted all bids and then calculated to do the work himself. It is a fraud to get people's figures when there is no intention of closing an order.

None of the bids received at Capt. J. W. Wescott's office for the raising of the sunken steamer Martha were accepted. It was decided instead to put Capt. W. W. Smith, the marine superintendent of the Minnesota Steamship Co., who is considered the best fresh water wrecker in the country, in charge of the operations. The Great Lakes Towing Co.'s outfit is to be used in raising the wreck.

David Carter, general manager of the Detroit & Cleveland Navigation Co., states that both of the Mackinaw boats will doubtless be lengthened in the near future, so as to be able to cope with the business of next year. "If we had more capacity we could find use for it, especially during the months of July and August," he said. "The DetroitShip Building Co., will probably get the contract, as it built the boats." It is estimated that the work of putting in fifty feet in the two steamers will cost $125,000.

Under her own steam the E. P. Wilbur, the vessel which collided with the Martha, went into the Orleans street drydock. Closer inspection of her in the dock did not serve to show that the damage done to her hull had been underestimated any. Superintendent Langell, of the drydock, found that twenty new plates will have to be put on her and a number of forward braces replaced. It will be about two weeks before the Wilbur can again be put in service, and the repairs will cost in the neighborhood of $10,000.

Capt. Hiram Ives, who was prominently connected in Detroit business circles many years ago, died in Ruthven, Ont., Sunday of rheumatic fever. The body was brought to Detroit and the funeral was held Tuesday afternoon from the residence of the sister of the deceased, Mrs. B. G. Stimpson, No. 603 Woodward avenue. Capt. Ives built the first drydock in Detroit, the dock being located near the site of the present Clark dock. Capt. Ives also owned and operated a number of boats. He closed out his vessel interests to move to Canada, from where he shipped molding sand to manufacturers in the States.

Several weeks ago Major Thomas H. Handbury, enginer of the ninth and eleventh light-house districts, with headquarters at this city, advertised for bids for the construction of a self-propelling hydraulic dredge. The amount available for this was $350,000, and prospective constructors were given to understand that their bids must not exceed that amount. There was one bidder offering to do the work for $389,000. The Major evidently did not advertise widely enough as all yards are still open for work. The Eastern firm of Townsend-Downey Ship Building and Repairing Co., New York, submitted the above bid. It is now likely that the department will readvertise proposals for another set of bids.

United States Engineer Lydecker has reported the wrecked schooner J. S. Richards a menace to navigation, and the United States district attorney has given Capt. Baker of the wrecking tug Champion, and Capt. May owner of the vessel, a few days in which to remove the wreck. The Richards was snnk in the Canadian channel by the steamer John W. Moore, and Capt. Baker, who had the contract for salving her cargo of pig iron, was compelled by the Canadian authorities to remove the wreck before he could take the cargo away. The Richards was towed over to the American side, and the Canadians were satisfied, but the United States officials have come in for their say. The sunken hull will probable be dynamited.

After making an examination of the location of the sunken barge Martha at Grosse Point in Lake St. Clair today, Col. G. J. Lydecker, United States engineer, issued the following cautionary notice to vessel masters: "The west half of Grosse Point Channel, in Lake St. Clair, is blocked by the sunken barge Martha. Vessels can pass only through the easterly half and those bound up should check and stop so as not to meet down-bound craft in the obstructed section, nor should vessels bound in the same direction attempt to pass each other in this section." In event of a second collision in the vicinity of the Martha the channel might be completely blocked for deep loaded boats. By the exercise of a little caution the passage by the wreck is entirely free from danger.

The circumstances surrounding the loss of the wooden built steamer John B. Lyons in Lake Erie September 13, in a heavy storm, are still fresh in the minds of many hereabouts, and now comes the suit of Mrs. William C. Tyler, wife of one of the sailors, who lost his life, against the Gilchrist Transportation Co., owners of the Lyons, for $20,000. Mrs. Tyler, in her declaration, states that the Lyons was unseaworthy, that the decks were rotten, and that the boat was overloaded. It is claimed she was but 21 feet deep and was loaded to 18 feet deep. There was but one lifeboat on the Lyons and one of the survivors says it was impossible to use that. The navigation laws require that the craft carry two boats, and the further claim is made that there was not the required life saving apparatus on board.

As the result of a head on collision with the Lehigh Valley liner E. P. Wilbur in Lake St. Clair off Grosse Point on Tuesday night, the barge Martha, owned by the Minnesota Steamship Co., Cleveland, lies sunk in the channel, with only her decks above water. The Martha was coming down in tow of the steamer Mariposa, loaded with 5,000 tons of iron ore for Lorain, and the Wilbur was bound up from Buffalo to Chicago with a general cargo. How the collision occurred neither Capt. Fuller of the Wilbur nor Capt. Kerr of the Martha will explain, but it appears that the Mariposa gave the signal to pass to starboard and the Wilbur responded. It seems that the Martha took sheer to port and the Wilbur struck her, the Martha sinking in twenty feet of water. The Wilbur has a hole in her starboard side and her fender strake is smashed. On her port side there is a hole five feet broad through the plates. Damage will probably amount to $3,500. The Martha does not block the channel. The steamer A. A. Parker, bound up behind the Wilbur went aground in preference to running into the wreck, and her cargo will have to be lightered. The Martha is pronounced by the experts who visited the wreck to be the worst smash-up they had ever seen. The bow is gone and the vessel is a wreck for thirty-five feet aft as far as her collision bulkhead. Her steel plates were forced clear back and her cargo of iron ore was jammed back and thrown over her decks. The escape of the crew from death was considered a miracle.

DULUTH—SUPERIOR.

Special Correspondence to The Marine Record.

The railroads are at a loss for cars to bring in the grain, though every effort has been made to get the necessary motive power and cars.

The steamer Joliet slided into the dock at Washburn on Wednesday with force enough to knock in a couple of plates and she had to be taken to Ashland for repairs.

There is now about 250,000 tons of anthracite coal on the docks here, so that we can't run very short in any case and when production again begins through the cessation of the strike, then it can be sent forward by rail, another point in favor of the all-rail system will be that there will be no shortage of cars during the winter months.

J. H. Darling and M. W. Lewis, of the United States Engineering Department, when at the Apostle Islands for the purpose of surveying certain shoals extending south from North Twin, surveyed the unplatted part of the shoal island. They have platted the shoal for a distance of a mile from the outside end of the previous plat. They ceased work after the water on the shoal attained a depth of 45 feet.

A special to the Pioneer Press from Bayfield, Wis., says State Game Warden Bissinger has seized the fishing tugs Cam and Anderson and all the nets belonging to A. Booth & Co., at their fishing grounds on Lake Superior, and arrested the captains of both tugs for unlawful fishing. Bayfield is the headquarters for the Lake Superior fishermen, and the action of the game warden will tie up a large number of boats.

It is known that charters have been made this week at 60 cents on iron ore and cargoes are scarce even at that rate, while the latest Escanaba charters called for 65 cents. This is sufficient to show how business at the head of the lakes is at present. The lumber rate, at $3, is the only decent figure in sight just now, and, of course, that is limited to certain tonnage. There is nothing offering on grain to induce coal cargoes to head this way and the season is, therefore gradually closing.

BUFFALO.

Special Correspondence to the Marine Record.

Shipments of hard coal this week amounted to barely nothing—Chicago, Duluth and Milwaukee taking about 2,000 tons each and another 2,000 tons divided among various ports.

The steamer Georgetown, 1,358 gross and 919 tons net, built and hailing from this port, has been granted an official registry this week by the Bureau of Navigation, Treasury Department, Washington, D. C.

With the anthracite coal miners at work again it seems doubtful if much more coal will go by lake. The eastern trade has first to be taken care of and that will take the production until the close of navigation.

The Calvin Co., L'td., Garden Island, Ont., will build this winter a wrecking tug, also a tow barge of about 2,000 tons capacity. The company is known as one of the best wrecking firms and shipbuilders in the province of Ontario, they also deal largely in timber.

Hingston & Woods have lost their case against the steamer Vulcan, which recently sunk one of her scows loaded with machinery, and for which they asked $8,000 damages. The trial was held in the United States District Court here, and will be taken to the Court of Appeals.

It has been reported that the property of the Union Dry Dock Co. will be sold to Edward Gaskin and another man whose name could not be learned. The details of the transfer were not given out, as all parties concerned were unwilling to announce anything in advance of the complete sale.

A bed of quicksand under the docks of the Union Iron Works at Tifft farm caused the docks to give way on Tuesday. Several thousand tons of iron ore fell into the opening, and some of the hoisting machinery fell across the decks of the steamer John Craig, which was unloading a cargo. The damage to the Craig will be about $2,000.

Rowland B. Mahany declared that if he is elected to Congress this fall he will endeavor to get Federal assistance for the project of constructing excursion docks at some suitable point in Buffalo harbor. He said: I do not suppose the Federal Government will supply all the money, but if we can make a start, obtain an appropriation of $500,000, for example, to begin with, we can readily get further assistance from the State government and the city government.

The aldermanic committee has asked Corporation Counsel Cuddeback to render an opinion as to who shall be compelled to pay for removing the grain from Blackwell canal which fell into the water during the burning of the Dakota elevator. The cost of dredging the shoal out of the canal will be about $600. It is the opinion of some that the elevator company should stand all expenses, and, on the other hand, it is said that the city must keep the locality habitable, hence foot the bill for cleaning and dredging.

It is now understood that Edward Gaskin and Lewis Warfield, supported by New York capitalists, have bought of the Erie Railroad Co. the plant of the Union dry dock, and will continue the business under the name of the Union Steamship Co. The investment will amount to more than $1,000,000. Mr. Gaskin, who has been superintendent of the dock for several years, says the new company will make a specialty of building first-class steel vessels for lake and ocean service. This is all I can learn of the deal at present, though it is said that the E. R. R. Co. is in it somewhere with Gaskin as their representative.

Construction upon the new life-saving station at this harbor will be begun in the near future. The station will be located on the south pier, opposite the entrance of Erie basin, and will cost between $50,000 and $75,000. The ports of Chicago and Racine on Lake Michigan are also to have new stations. Plans are being prepared at Washington. Superintendent Kimball says the Chicago station will be the equal of any station in the service. Its stone foundation is to cost about $8,000. The site is about a quarter of a mile east of the present station, or in the angle of the south pier and harbor breakwater, bringing out even with the light near that point. Racine's new station will be located between the light-house and the shore in Racine harbor, and will also be a very fine station when completed.

The steel steamer Georgetown was successfully launched from the yards of the Union Dry Dock Co. on Saturday. The Georgetown is the first steel vessel to be built in Buffalo for coast or ocean service. She is 258 feet long, 40 feet beam and 18 feet 3 inches molded depth, and is the largest boat that can be taken through the canals to the St. Lawrence. Six of these steamers will be put into service by the Atlantic Coast Lumber Co., and one built at the Craig yard in Toledo has already been put into commission. The company has docks at Georgetown, S. C., and has purchased the Georgetown & Western railroad, which is being rebuilt and extended north and south into the timber districts of South Carolina. The launch was under the supervision of Edward Gaskin, superintendent of the Union Dry Dock, and there was not a hitch in the arrangements for putting the boats in the water.

IT is reported that the Indiana, Illinois & Iowa railway is to open a new winter steamship line between St. Joseph, Mich. and Milwaukee. The details of the plan will be given out in a few days.

ST. LAWRENCE INSURANCE RATES.

Much has been said and written upon the question of British North American insurance rates, and it has been held that underwriters at home have penalized the trade with St. Lawrence ports to a degree altogether out of proportion to the risks involved. That such contention has its foundation in fact is undoubtedly true, notwithstanding all the arguments to the contrary; but whether the case has not been unduly magnified is controversial, it being strongly averred by underwriters that the rates charged only represent a paying premium for the trade and the class of steamer engaged in it. It is well known that some lines obtain cover at far more reasonable rates than others engaged in the same trade, and, as underwriters do not run their business on partisan lines, or accept risks for the pleasure it may give them of conferring favors, though they may be willing and ready to oblige a broker friend by initiating his "slip" at current rates, it is evident that there is a reason for this apparent favoritism in the Canadian marine insurance rates. The matter, therefore, assumes the form of a problem in which some tangible factors are given, others being confidently assumed in order to arrive at a satisfactory solution. As underwriters base premiums upon averages, and carry the principle out in its completest form, it would appear as if they were justified in assessing whatever rate they levied in respect of any particular trade in which a sufficiently wide experience had been gained. And it may be taken for granted that this is the case in all well-known trades. Even underwriters have a tide of competition to meet which outsiders and insurers generally do not understand. This is proved by the futile attempts which have been made to fix premiums at what may be called paying rates, the competition being so keen that such an agreement between the numerous underwriting interests is looked upon in some quarters as positively outside the range of practical politics, and this notwithstanding the fact that general underwriting, so far as the experience of some of the great companies extends, has been, generally speaking, a losing game for some time, and were it not for the reserves piled up in the halcyon days of the business, the interest on which now brings in a fair dividend, shareholders might want to put the closure on active operations. Some trades are naturally more hazardous than others, and upon the ship running on particularly perilous routes, rates, in accordance with the risks taken, are charged. This penalty has to be borne ultimately by the consumers for freights in consonance with the voyage, and its burdens must be obtained by the shipowner, but that is not the underwriters' concern. The shipowner is hardest hit, not when rates all round are high, but when they are variable, for when all are served alike, in the case of insurance as in other matters, honors may be said to be equal. But some steamship lines are underwritten at lower premiums than the average charged to others, and with better results from the underwriters' standpoint. It is here that the discriminatory rates tell against the penalized companies, but the experience of the insurance companies is such as to warrant their action. There is no effect without a cause, and it behoves those who are handicapped to see how they can claim the preferential rate. As it is not always in the vessel herself, although some allowance must be made for that factor, it must be in some other direction—either the nature of the cargoes or the caliber of the navigators. In the matter of cargo that is a factor which has its due consideration in every class of vessel, but usually the intermediate class of liners and tramps get rougher cargo than do the first class mail and passenger ships. Besides, in the storing of the cargo, the men in the better companies are usually semi-permanent hands, while the overseers are thoroughly conversant with the work, which is characteristic year in and year out. The navigators are, to our mind, in a great measure the factor which should have the most careful consideration. Men in the best lines are trained from the lowest junior officers' rank to command, and the process is usually a tedious one. But that the training for years in the one service in the various grades has a beneficial effect is proved by the fact that in proportion to the movements of steamers so officered there are fewer accidents than is the case with outsiders. Particularly is this the case in the Canadian trade. The Gulf of St. Lawrence is anything but a navigational paradise, for what with fogs, storms, currents, and tidal streams, known and unknown, rocks and shoals, marked and unmarked, compass vagaries, and what not, it is not surprising that men of little or no experience of the district simply pile up their ships, and come away, with sad hearts, to face the music of a Board of Trade inquiry. This trade is one that too much experience and ability cannot be brought into for safety, and it is on account of the difference in actual results between the well-found, well-equipped, and well-navigated liner and the outsider that the discrepancy in the insurance rates is so marked. However, the fact that these rates act prejudically upon the trade of the Dominion—as evidenced by the withdrawal of a number of freight steamers from the Canadian-American trade when the higher rates of insurance came into force on the 1st of this month—is to be deplored, and whatever can be done to bring these rates to their very lowest possible point should be done. The matter is a national one, and the discussion in Ottawa upon the suggested handling of the question by the Government will be followed with interest. Certainly some such step is needed in the interests of the Dominion and of shipping generally, and, even with reduced premiums and a properly organized strong underwriting corporation, there ought to be no difficulty in paying a small interest, which might well be guaranteed by the State. The development of such a scheme is not by any means possible, or, in fact, improbable, and it will, if established, be a great boon to all concerned.—Journal of Commerce, Liverpool.

NAVAL CONSTRUCTION.

The report of the chief of the bureau of construction and repair for the year 1899-1900, is the last one to be submitted by Rear Admiral Hichborn, the present chief of construction as he retires next March.

The report opens with the estimates, the principal items being: For preservation of the repairs to vessels of the navy, $7,000,000; for repairs and improvements to navy yards plants, $920,000; the account of hulls and outfits to vessels and steam machinery heretofore authorized, $21,772-917.

The chief constructor points out the disadvantages under which the naval station at Cavite labors, and quotes a report from the naval constructor relative to proposed site at Olongapo Subic bay. He withholds reccommendation thereupon until the question of a permanent naval station in the Philippines is definitely settled.

Especial attention is placed on the need for additional drydocks. He says: "There are available at the present time on the east coast of the United States but nine government drydocks of all sizes distributed among seven ports and of these but one is of sufficient size to take the battleships." The report refers to the wonderful growth and development of the navy from the sails and wooden hulls and advocates the building of vessels in the navy yards.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	3,626,000	250,000	196,000	79,000	785,000
Chicago	13,005,000	2,923,000	3,753,000	531,000	54,000
Detroit	560,000	46,000	179,000	67,000	17,000
Duluth	6,999,000	50,000	170,000	89,000	651,000
Fort William, Ont.	816,000	.....	.....	.....	.....
Milwaukee	780,000	42,000	415,000	7,000	59,000
Port Arthur, Ont.	104,000	.....	.....	.....	.....
Toledo	1,211,000	461,000	1,539,000	23,000	1,000
Toronto	75,000	.....	1,000	.....	182,000
On Canals	224,000	215,000	26,000	26,000	109,000
On Lakes	599,000	1,446,000	670,000	.....	577,000
On Miss. River	.....	100,000	46,000	.....	.....
Grand Total	59,773,000	8,144,000	12,536,000	1,000,000	3,067,000
Corresponding Date, 1899	49,561,000	13,716,000	6,913,000	1,093,000	2,876,000
Increase	1,460,000	.....	226,000	33,000	472,000
Decrease	.....	770,000	.....	.....	.....

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

MARINE PATENTS ISSUED.

660,155 and 660,156.—Apparatus for controlling mechanism of moving vessels, vehicles. Bradley A. Fiske, U. S. N., assignor to the Western Electric Co., Chicago, Ill.

660,318.—Apparatus for governing and controlling marine or other engines. Elmer A. Sperry, Cleveland, Ohio.

660,399.—Propeller-shaft Bearing. John T. Shepard, Evansville, Ind., assignor of one half to Frank Tardy of same place.

660,418.—Elevating and Ramming Apparatus for Turret or Barbette Guns. A. T. Dawson, London, England, assignor to the Vickers and Maxim, Limited, Sheffield, England.

660,436.—Bulkhead and Door. John H. Hind, Barrow-in-Furness, England.

THE CONEMAUGH-NEW YORK CASE AGAIN.

The United States Court of Appeals has handed down an important decision in the Conemaugh-New York case, which grew out of the collision in 1891 below Fort Wayne, in which the Conemaugh was sunk. The court holds that the appeal should not be dismissed because it was not taken in 30 days, as the act creating the court of appeals supersedes the old chancery rule, and appeals can be taken within six months. Another reason advanced to dismiss the appeal was that the American Surety Co. had not joined as appellant. The court holds that the surety company, not being a party to the proceedings, need not be joined.

The history of this nine-year litigation, which will probably attain its majority before it is settled, is interesting. It has been before the district court three times, before the court of appeals four times, and before the United States Supreme Court twice. It will now go to the court of appeals again, thence to the supreme court, and will be referred back to the district court for settlement.

In 1891 proceedings were started for the settlement of damages. The New York was libeled and released on a $100,000 bond of the American Surety Co. After a long trial the district court in 1892 divided the damages. The Conemaugh got a rehearing in 1893. In 1895 Judge Swan reversed his holding that damages should be divided, and held the New York wholly in fault for the collision. A decree was taken in 1896 against the New York for $70,000. In 1897 the court of appeals reversed Judge Swan, holding the Conemaugh owners liable to the New York for $3,000 the amount of damages sustained by the New York. A rehearing was denied in 1898 and went in 1899 to the supreme court, where both boats were again declared at fault and damages again ordered divided.

The parties came back to the district court to settle the damages. Judge Swan made the computations. The New York claimed that it should be allowed not only the half of $3,000 damages it sustained, but also half of the $30,000 damages which it had to pay to the innocent cargo-holders of the New York. It thus claimed a recoupment of over $16,500. Judge Swan's decree, however, made the New York stand not only its half of the damages, but also the amount which it paid to innocent cargo-holders, or a total of 76½ per cent. of the whole loss, instead of one-half.

Attorneys Fred. C. Harvey, Esq., of Detroit, and Charles E. Kremer, Esq., of Chicago, representing the Erie Railroad Co., owners of the New York, appealed to the United States supreme court from Judge Swan's decision, but that court held that their remedy was by appeal to the court of appeals. They then went to the court of appeals, where the motion was made to dismiss by Attorneys H. D. Goulder, Esq., of Cleveland, for the Conemaugh owners, and F. H. Canfield, Esq., for the underwriters.

Many important questions have been decided in this venerable litigation. The most important was probably that raised by the Conemaugh that the surety on the release is a party to the suit. It has been held in this case that the surety is not. The question of the assessment of damages is the big question in the case.

Nearly $100,000 is now involved. The printing of the records in the case alone has cost $1,500, and the court fees many hundreds.

IT will be recalled that it has been from time to time asserted in the columns of The Railway and Engineering Review, Chicago, that the car ferry proposition as an economic factor in railroad operation had its limitations; that while it might be profitable to use it across the upper part of Lake Michigan, as compared with hauling cars around the lake, it never could be utilized in competition with a rail line of anywhere near corresponding mileage. The success of the Ann Arbor car ferry which crosses the lake from Frankfort, and their own ferries between upper lake ports, induced the Pere Marquette line to investigate fully the feasibility of a similar proposition from Chicago to New Buffalo, the southermost point at which that road touches Lake Michigan. It was found, however, that it could operate cheaper over the Michigan Central road than by such a car ferry, and the lead has been abandoned. It would not seem that a very long or close inquiry was necessary to reach such a conclusion. It can be demonstrated that in the question of movement expenses alone it costs more per ton mile to handle freight via a car ferry than by a railroad, and it is only where the mileage saved by the use of the car ferry is greatly in excess of its own distance that any advantage can be hoped for by its use.

NAVAL PROGRESSION.

"Notes on Naval Progression," for 1900, just published under the direction of Capt. C. D. Sigsbee, chief Intelligence officer of the Navy, embrace the usual comprehensive range of subjects concerning the navies of the world. Of the several topics treated nearly all are technical. Lieut. C. C. Marsh writes of ships and torpedo boats, Lieut. Com. R. T. Mulligan of gunnery, ordnance and armor; Lieut. L. R. de Steigner of engineering and electricity, and Lieut. W. L. Howard presents some tables of comparison of the principal naval powers.

The principal article is by Lieut. Howard. It is entitled "Increase in Naval Strength as shown by Naval Budgets," and deals minutely with the preparations made by the several naval powers to augment their fleets. In his introduction Lieut. Howard says: "England, as usual, leads with the largest sum for the support and increase of her navy. But large as is this total, it is generally felt that the admiralty program is inadequate, and the press of that country is actively urging a further increase."

The British program proposes to lay down this year the following vessels: Two battleships, 6 first-class armored cruisers, 1 second-class cruiser, 2 sloops, 2 gunboats, and 2 torpedo boats. With these the number of vessels under construction in 1900 are 17 battleships, 20 armored cruisers, 1 first-class protected cruiser, 2 second-class protected cruisers, 1 third-class cruiser, 8 sloops, 4 torpedo boats, 21 destroyers, and 1 royal yacht. There has never been so many vessels under construction as at the present time. In 1899 England added 19 vessels to her fleet, aggregating 122,322 tons, and in 1988, 30 ships, with a total tonnage of 140,988. The budget for this year provides for an increase of 4,240 in the personnel, bringing the total strength up to 114,880 officers and men.

In addition to the French shipbuilding program of 1896, which covered a period extending to 1907 and provided for the construction of 220 vessels, the French minister of marine now proposes the construction of a number of vessels of various kinds necessary to make the fleet a homogeneous force. The program proposes laying down the following vessels, beginning this year: Six battleships, 5 armored cruisers, 28 destroyers, 112 torpedo boats and 26 submarine torpedo boats. This will give the French fleet, after the execution of the program, 28 battleships, 24 armored cruisers, 52 destroyers, 263 torpedo boats, and 38 submarine boats. The total cost of the old and additional programs will be 712,208,000 francs.

Considerable space is devoted to the increase in the German navy on account of Germany's decision to become a great naval power. In addition to the program of increase provided for in 1898 it is now proposed to make a further increase. There is considerable opposition to the bill to carry into effect the new proposals, but Lieut. Howard points out that even if the proposed program should be closely adhered to Germany's fleet would appear in the following years thus:

1900—Seventeen battleships, 10 large cruisers, 29 small cruisers, 12 divisions of torpedo boats.

1908—Twenty-nine battleships, 20 large cruisers, 51 small cruisers, 16 divisions of torpedo boats.

1916—Thirty-eight battleships, 20 large cruisers, 45 small cruisers, 16 divisions of torpedo boats.

Italy's naval budget for 1900-1901 amounts to 122,174,671 lire. An annual extraordinary expense of 10,000,000 lire has been authorized for shipbuilding for the period ending in 1903. Italy has on the stocks, or in a more or less advanced state of construction, the following ships: Four first-class battleships, 3 armored cruisers, 3 small cruisers, 10 torpedo boat destroyers and 3 first-class torpedo boats. To these must be added 2 first-class battleships of Admiral Bettolo's naval program.

All the 117 warships provided by the Japanese naval program of 1895 have been completed or are in process of construction, and Lieut. Howard says it is probable that a new program will shortly be decided. The budget for 1900 amounts to 46,946,193 yen, and there is a special fund for the maintenance of vessels authorized by the diet of '98-99.

Russia has followed the example of the European powers in formulating a program of new construction. In 1898 a sum of 90,000,000 roubles was set apart for the completion in six years, ready for sea, of 10 armored cruisers, 10 second class cruisers and 20 destroyers. This program was in addition to the annual program outlined by the naval estimates. Later the number of vessels to be built was changed to 8 battleships, 8 large cruisers and 20 destroyers. In concluding his review of Russian naval progress, Lieut. Howard says:

"Notwithstanding the fact that the progress made with existing program has not been as rapid as was expected, and that her naval budget has steadily increased from $20,000,000 in 1897 to $45,000,000 in 1900. It is currently reported that the Russian government has in preparation and will shortly announce a new and extensive program for the increase of her fleet."

By a royal decree of May 28, 1900, Spain has provided for getting rid of the useless warships and with the proceeds of their sale two ships of about 2,000 tons each, to be used for training officers and men are to be constructed. The credits allowed under the budget for this year are to be employed "toward completing and increasing the screws of the Pilago, Carlos V., Numancia, Victoria and Nautilus." A general scheme of instruction for officers and men is to be carried out.

The Australian naval estimates for 1901 provides for the completion of vessels under construction, but not for any new ships.

Denmark's naval budget is to be used partly to pay the first credit for the construction of a new battleship of the type of the Herluf-Trolle, recently launched.

Holland's program for this year proposes 4 large battleships, 2 smaller battleships for interior waters, 3 monitors, 14 gunboats, 21 seagoing torpedo boats and 12 smaller torpedo boats. This program is to be completed in 1909.

Sweden is to build 3 first class battleships, and to modernize 3 coast defense battleships.

ST. LOUIS STEEL BARGE CO.

The St. Louis Steel Barge Co., organized some time ago, has completed one of its barges and a steamer, and has launched them and a second barge, which is yet to be finished. The company will start the vessels on a trial trip down the Mississippi river to New Orleans the latter part of this month with a cargo of grain and other freight for export. The company was organized with a nominal capitalization of $125,000, but the three vessels just completed cost them $120,000. Work was begun on them last April at the section boat yards in Carondelet. The first barge was launched in July and the other barge and the steamer a few days ago. The steamer is named the McDougall, after Capt. Alex. McDougall, a member of the company, and the inventor of whaleback construction. The vessels have been built according to Capt. McDougall's ideas, and the whole thing is in a manner an experiment, inasmuch as the entire system of motive power and its application, the construction and all else, is a new idea of Capt. McDougall's never tried before. The barges will be quietly loaded when completed and taken down the river. Mr. Potter and Capt. McDougall will probably be the only members of the company to go on the initial trip, as they do not wish to make any "hurrah" about the new enterprise until it has been proven successful. No provision has been made for passenger traffic, the line being intended solely for freighting purposes. The carrying capacity of the barges is about 3,000 tons each, and of the steamer about 600 tons. They are 265 feet long, 40 feet beam and 14 feet deep, drawing only 16 inches of water, though each weighs over 350 tons. The barges are constructed of one-fourth to three-eighths inch steel plates, and the hold is divided into compartments, on the order of a fireproof building, so that if water gets into one compartment it can do no damage beyond that compartment. Steel eye-beams are used in the construction, and the weight of the vessel, to an unintiated person would seem to be so great as to preclude any possibility of its floating on the water, and yet the barge draws only 16 inches of water. The men interested in his new enterprise are among the foremost citizens of St. Louis, including Ex-Governor Francis, John Scullin, James Campbell, Isaac H. Lionberger, Rolla Wells and men of like high commercial standing. The movements of the company have been kept quiet as much as possible. If the initial trip is a success there will be a demonstration, perhaps, on the return of the boats to St. Louis.—The Age of Steel, St. Louis.

"IT will be good fortune indeed," the Boston Globe notes, "if in the fourteen armored ships soon to be built for our navy such notable work is done as has been accomplished in the Wisconsin. The hope and expectation is that every one of the five battleships included in the number shall prove better than any foreign war vessel afloat. As for the six cruisers, they are planned to be floating arsenals in truth, possessing armaments in every respect up to date. All signs give promise that our new navy will more and more be the just pride of the American people."

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Exemplary Damages.—Exemplary damages are not recoverable in a suit in rem against a vessel for a maritime tort. The William H. Bailey, 103 Fed. Rep. (U. S.) 799.

Presumption of Fault.—The fact that one of two vessels sailing on crossing courses was struck by the other and sunk raises no presumption that the survivor was the one in fault for the collision. The Margaret B. Roper, 103 Fed. Rep. (U. S.) 886.

Collision—Suit for Damages—Evidence.—Book entries introduced to show the earning of a vessel prior to collision are not inadmissible because not authenticated as original entries, as would be required if they were introduced to prove an account. The William H. Bailey, 103 Fed. Rep. (U. S.) 799.

Collision—Suit for Damages—Testimony of Seamen—The testimony of seamen on a ship sunk in collision, as to the manner of such collison, is not to be discredited because of their personal interest in the suit on account of their claims for loss of effects, such fact being no more likely to affect their testimony than the bias most seamen have in favor of their own ship. The Margaret B. Roper, 103 Fed. Rep. (U. S.) 886.

Libelant not Entitled to Lien.—A libelant who made repairs on such vessel under an agreement with the port captain, who had charge of the work, with the approval of an officer of the company, on a statement by the port captain that the vessel was owned by the company, and was "good for the bill," but who made no inquiries of the company, and no agreement with it for a lien, was not entitled to a lien therefor. The George Farwell et al., 103 Fed. Rep. (U. S.) 882.

Carriers—Loss by Fire—Liability.—Under a contract of shipment providing that no carrier is bound to carry the property by a particular train or vessel, or otherwise than with a reasonable dispatch as its general business will permit, or shall be liable for loss thereof by fire, the carrier is not liable—the fire destroying the vessel and cargo not arising from its fault—though the goods would not have been destroyed if it had carried them on the night of their arrival; the capacity of the vessel not being sufficient for all the cargo. In re Bridgeport Steamboat Co., 103 Fed. Rep. (U. S.) 797.

Sailing vessels Crossing—Evidence Considered.—Evidence relating to a collision at sea in the night between two schooners considered, and held not to sustain the contention of the libelant, whose vessel was sunk, that the two vessels met on parallel courses, and that the collision was caused by a change of course on the part of the libeled vessel, but to support the claim of the latter that she was sailing, close-hauled, on the starboard tack on a course crossing that of libelant, and that she held her course, which, as the privileged vessel under navigation rule 14, she was required to do, and was not, therefore, in fault for the collision. The Margaret B. Roper, 103 Fed. Rep. (U. S.) 886.

Constitutional Law—Seamen—Desertion.—Congress not having legislated upon the subject of the offense of aiding articled seamen or apprentices to desert or leave a foreign vessel while in the waters of this state, the legislature of the state had the right and power to enact section 655 of the Penal Code, making it a misdemeanor for any person to aid or induce an articled seaman or apprentice to desert from or leave his vessel while in the waters of this state. The act in no way attempts to regulate or interfere with commerce, but is an aid thereto. Where the subject is local, and not national, in its nature, and does not require a uniform system of regulation, in the absence of legislation on it by Congress, it may be regulated by the state. Handel vs. Chaplin, 103 Fed. Rep. (U. S.) 979.

Maritime Liens—Repairs and Supplies—Representation of Ownership by Charterer—A steamship company having its place of business in New York City, through its officers procured repairs to be made and supplies furnished to a vessel in that port, representing that it was the owner of such vessel, although the vessel was in fact owned in Cleveland, and the company was in possession under a charter which required it to make all repairs and furnish all supplies at its own expense, and to keep the vessel free from liens. Held, that persons making repairs or furnishing supplies on such representations were not bound to make further inquiries as to ownership, but were justified on relying on such representation, and, where there was an express agreement for a lien, the vessel was bound thereby; but that, in the absence of such agreement, or where no injury or statement was made as to ownership, there would be no lien, although the repairs or supplies were charged to the vessel, the presumption being that credit was given to the supposed owner. The George Farwell et al., 103 Fed. Rep. (U. S.) 882.

"YOUR boat is very light draft, captain." "Very." "I understand you think nothing of steaming across a meadow where there's been a heavy fall of dew." "Wall, stranger, I don't know 'bout that; mebbe we do—though I reckon we sometimes have to send a man ahead with a watering-pot.—Ex.

MARINE RECORD

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CLEVELAND, O., NOVEMBER 1, 1900.

BUFFALO-NEW YORK TRAFFIC.

The indignation of New York grain men over the new rate from Buffalo to New York, which went into effect on November 1st, is not diminishing in the slightest, and talk of a barge canal has revived.

Henry B. Herbert, chairman of the Canal Association of Greater New York, and a member of the canal committee of the Buffalo Produce Exchange, says: "The need of a barge canal for the control and safety of the commerce of the port and State of New York was unmistakably demonstrated on October 25th. On that day, without any previous notice, Mr. Harriot, chairman of grain committee of the railroad combination, announced an advance in grain freight, Buffalo to New York, of 33⅓ per cent., to take effect November 1, 1900.

"So sharp was the advance and so short the time given merchants to adjust their contracts for future deliveries of grain that it was a shock to a trade unprepared for such a change. There were many protests on the floor of the New York Produce Exchange, and for a while Mr. Harriot was the center of attraction. Merchants were vehement in their denunciation and declared that the action of the railroads more than ever proved the necessity of a barge canal in the interest of New York trade.

"The new schedule of freight rates will undoubtedly restrict the movement of grain to New York and improve the exports at Boston and competing ports.

"This summary action of the railroad management brings into view the arbitrary and absolute control of the freight situation by the combination, and involves not only the matter of making the rate of freight, but the question of percentage of traffic that shall come to New York. This is a railroad conquest of the commerce of this great port. With no competition in sight to check this condition in transportation, we may earnestly ask, What are the citizens of the Empire State going to do about it?"

CHANGE IN AIDS TO NAVIGATION.

The Light-House Board gives notice that the work of changing the iron buoys in the ninth light-house district, for the winter, to spar buoys, similarly painted, will begin on the dates below: Gas lighted buoys, entrance to Fox river, Green Bay, November 7; gas lighted bell and iron buoys in Green Bay channel between Lake Michigan and Green Bay, on Wiggins Point shoal, and in Sturgeon Bay, November 8; gas lighted buoys, Fox Island and Rush shoal buoys, Lake Michigan, November 12; Mackinac Straits (west of old Mackinac light station) and channels north and east of Beaver Island group, November 15; off Sheboygan, November 17; off Milwaukee and Racine, November 21; off Chicago, November 28.

SPEED OF NAVAL VESSELS.

With the exception of torpedo boats and a few small pleasure craft, the American-built Russian cruiser Variag is today the fastest vessel afloat, having recently gone through a seven and a half hours' trial run at a speed of from 23.6 to 23.7 knots, or 27.14 to 27.75 miles an hour. The best hourly trans-Atlantic record, which now is held by the Hamburg-American line steamship Deutschland, is 23 knots, or 26.45 miles, and this affords a very suggestive standard for comparison.

The United States triple screw cruiser Minneapolis about six years ago developed slightly more than 23 knots during her contract trials, but, as in the case of most naval vessels, it was not expected that this would be demanded hour after hour in a run of several days, and it was not until the succeeding year, 1895, that practical demonstration was given for the first time that a naval vessel could actually hold her own with one of the crack American liners. This was afforded by the United States cruiser Columbia in her phenomenal run from the Needles, near Southampton, to the Sandy Hook lightship, off the American shore, in a few minutes less than seven days, or, to be exact, in six days, 23 hours and 49 minutes, the average speed of the whole trip being 18.54 knots, or 21.3 miles an hour. The Columbia at the time was practically racing against the steamer Augusta Victoria, of the Hamburg-American line. Making proper allowance for the difference in the length of the two routes, the Augusta-Victoria having sailed from Cherbourg, the same rate of speed was maintained by both ships.

Since that time high-rate, long-distance runs of war vessels have been repeated, so that the impression has at last been wiped out, that modern warships were simply boxes full of delicate and complex machinery scarcely fitted for the heard knocks which they were really intended to withstand. But among all the swift cruisers and battleships the Variag's 23.7 knots give her to-day first place.

ASTRONOMICAL DATA FOR NOVEMBER, 1900.

(FURNISHED BY THE WASHBURN OBSERVATORY.)

The brighter planets are disappearing gradually from that portion of the heavens visible at night. Venus is still the brilliant morning star, and the ruddy Mars ascends the eastern sky through the early morning hours, hardly passing the meridian before it is extinguished by the light of day. But Venus is steadily approaching the sun and diminishing in brilliancy; while Jupiter and Saturn, so conspicuous through the past summer, in the southern sky, are now seen only in the early evening, sinking towards the southwestern horizon. The lesser planet, Mercury, passes through inferior conjunction November 19, and then swings westward from the sun, but its apparent path keeps the planet too low to be readily seen.

An annular eclipse of the sun occurs on November 21, not visible at all in this part of the world. The path of central eclipse will cross South Africa, the Indian Ocean and terminate in Australia.

The present month is that in which the famous Leonid meteors may be looked for again, November 15th and 16th. But, considering the scarcity of those seen the past two years and the fact that the orbits of these meteors have been disturbed by the major planets there is little probability of a remarkable display.

The times of sunrise and sunset at Milwaukee for the month are as follows:

	SUNRISE.	SUNSET.
Nov. 1	6:26	4:44
Nov. 11	6:39	4:32
Nov. 21	6:52	4:23
Nov. 30	7:02	4:18

The times of the moon's phases are:

Full moon	Nov. 6, 5:00 p. m.
Third quarter	Nov. 13, 8:38 p. m.
New Moon	Nov. 22, 1:17 a. m.
First quarter	Nov. 29, 11:35 a. m.

The principal fixed stars visible during the month in the evening hours are: To the west, Vega and Altair. To the east, Aldebaran, the Pleiades and Capella.

VESSELS CLASSED.

Vessels classed and rated by the American Bureau of Shipping, New York, in the Record of American and Foreign Shipping: American screw Santiago, ship William H. Conner, three-masted schooner Horace P. Shares, three-masted schooner Rebecca J. Moulton, British three-masted schooner Wentworth and British three-masted schooner Bessie Parker.

LITERARY NOTES.

With its November issue, The Century Magazine begins a Year of Romance, during which many of the most famous living writers of fiction will contribute to the magazine short stories, novels or novelettes. The reception accorded "The Helmet of Navarre," begun in the August number, indicates that the proposed departure will be a popular one, and with such names to conjure with as Rudyard Kipling, Mrs. Burnett, Bret Harte, Lew Wallace, Wier Mitchell, Miss Wilkins, Winston Churchill, Howells, James, Harris, Cable, Stockton, Page, Anstey and Ian Maclaren—to note but these few—the conductors of the Century are pretty sure to meet the tastes of all lovers of fiction.

In the November number of the North American Review, Capt. A. T. Mahan has an article on the "Effects of Asiatic Conditions upon International Policies," in which he discusses, with characteristic mastery of the principles involved, the changes in the relations of the different powers to one another and to the world at large which may result from recent events and developments in Asia. Captain Mahan pays special attention to the question: How can the United States, in the new situation, secure the consideration due them in the councils of the nations and provide for exercising in adequate degree their moral and commercial influence upon the Orient? To do so, in Captain Mahan's judgment, our country must so increase the navy as to enable us to be in effective force on the Pacific, and also—the Isthmian canal being completed—in the Caribbean Sea. He points out a serious defect in our naval resources, which should be remedied.

The prospectus of Scribner's Magazine for 1901 promises a most interesting series of articles. Gen. Francis Vinton Green's story of "The Regular Army," which will be one of the prominent illustrated features, should prove a special attraction to our readers. Few invented stories of adventure could contain more deeds of personal heroism and dash, and few stories of older armies hold better examples of what has been done by organization, steadiness and skill. These articles will be illustrated with comprehensive historical accuracy. "Russia of To-day" will be described in articles by Henry Norman, and China and the Chinese situation by Thomas F. Millard, author of articles on "With the Boer Army." Mr. H. J. Whigham will also be in China for the magazine. Theodore Roosevelt will contribute articles on public topics, and John Fox, Jr., a group of papers on "The Southern Mountaineer." In fiction, Kate Douglas Wiggin contributes a short serial story; J. M. Barrie a new story, to be announced later in the year; E. W. Hornung a new series of stories of "The Amateur Cracksman;" Earnest Seton Thompson further stories of animal life; Frank R. Stockton a story said to rank with his best; and other authors' stories on various themes. A series of noteworthy papers on art will appear, from the hand of John La Farge and others. Illustrations will, as usual, form a special feature of the magazine, with color printing of a high order, for which the magazine has made itself a reputation. The November issue of Scribner's, now ready, contains the second article on "Russia of To-day," telling of the great Siberian railway; the conclusion of J. M. Barrie's present serial, "Tommy and Grizel"; "The Landscape Features of the Paris Exposition," by Samuel Parsons, Jr.; "The Tartar Who Was Not Caught," a Shanghai story and "The Wheel of Fortune," a bicycle story; "A Camera at the Fair," by Dwight L. Elmendorf; "A Little Gossip," by Rebecca Harding Davis; a story by Henry James, poems, and much other matter.

THE NEXT YACHT RACE.

The new cup defender has been ordered. The Herreshoffs have been instructed to go ahead with their plans for the cup racer, and only the question of management causes discussion now.

This time the defender will be a syndicate boat, and over a score of yachtsmen will be financially interested in her. Over $100,000 has been subscribed for her erection, and Cornelius Vanderbilt's and August Belmont's names are mentioned as liberal subscribers.

The question as to who will manage the new boat cannot be answered yet. Several prominent yachtsmen have been talked of in this connection, but none has up to this time been agreed upon.

W. Butler Duncan, who managed the Defender so well during her trial races with the Columbia, has received favorable consideration, as has also Cornelius Vanderbilt and Henry F. Lippit, the owner of the schooner Quissetta.

NAUTICAL SCHOOL AT BUFFALO.

Buffalo is to have a nautical school. For some months Nautical Expert J. C. P. de Krafft, of the Hydrographic Office in the Prudential Building, has had the matter under consideration, and urged by Lieut. W. J. Wilson, of Chicago, who four years ago established the first school for scientific instruction in the art of navigation, and by the various line managers of Buffalo, he has decided to begin the course on November 15th.

Most of the vessel owners of Buffalo are backing Mr. de Kraff's venture. Capt. M. M. Drake and Supt. Edwin M. Gaskin, of the Union Dry Dock Co., are interested in the move, and W. C. Farrington, president of the Lake Carriers' Association; E. T. Evans, manager of the Anchor Line, and Gibson L. Douglass, of the Western Transit Co., have promised to send their vessel captains, mates and pilots to the school.

Following along the same lines adopted by Lieut. Wilson at Chicago, Mr. de Krafft has no doubt of the complete success of his plans.

Mr. de Krafft is a son of the late Rear-Admiral de Krafft of the United States Navy, and at one time chief of the Government Hydrographic Office. He has had an extended and varied practical experience, having been for seven years in the Construction Department of the San Francisco yards, and being interested in the building of the Olympia, Oregon and several other government ships.

Mr. De Kraft says: "Navigation is one of the most interesting sciences we have, and it surprises one to find how quickly a knowledge of it may be obtained when it is explained in a simple, common-sense way by one who understands the theory of the science as well as its practical application.

"The class room is to be furnished with everything required to make the study clear and intelligible and all examples explained by blackboard illustrations as well as by the use of nautical instruments, and a thorough knowledge of the latter is to be imparted to the student.

"The two great perils to navigation on the Great Lakes are fog and snow. Hence, safe navigation is dependent upon a correct compass, with a knowledge and frequent use, on the part of the master, of the azimuth tables, the precaution to take bearings of prominent points, and from them plotting the position frequently on the chart. Also the familiar use of the chart in laying courses and correcting same for variation and deviation.

"Lack of the theoretical knowledge of their profession is a drawback to a thoroughly successful work on the part of the average lake captain. They can sail a course safely and truly when the usual landmarks are discernible, but when these are obscured by fog or storm the lack of the theoretical principles is readily apparent.

"Special instruction will be given to candidates possessing the necessarry practical experience who desire to take the examinations of the local board of steamboat inspectors for masters, mates and pilots' licenses. The course of navigation taught embraces the rudiments of the science and such workings as are given below. The same being necessary for navigating a vessel along the coast or on the Great Lakes, the arithmetic of navigation, the compass and its details, variation and deviation of a compass, different methods of determining same, compass adjustment, the subject of time, declination, etc, charts and chart construction, plotting positions by bearings, weatherology, law of storms.

"In addition to the above, certain parts of seamanship are taught, such as the log and lead line, rules of the road, and parts of ship."

It is the intention of Mr. de Krafft to open the school about the time the vessels begin to lay up at the close of navigation and it will be continued until April 1st.

THE Navy Department has called for bids for five new battleships and six armored cruisers. The specifications for the battleships call for double-decked turret ships, 435 feet long on the load water line. The extreme breadth of the water line is to be 76 feet 10 inches and the trial displacement about 15,000 tons for the sheathed and coppered vessels and 14,600 tons for those unsheathed. They are designed to travel nineteen knots an hour and are to have 3,590 tons of armor. The cruisers will be 502 feet in length, load water line, and 69 feet 6 inches in width. They will have a speed of twenty-two knots an hour. The draft will be twenty-six feet when loaded and twenty-four feet with the ordinary service load. The weight of armor on each cruiser is to be 2,119 tons, with 100 tons of cellulose backing.

THE NEW STEAMER WACCAMAW.

The first of the new steamers of the Atlantic Coast Steamship Company, the Waccamaw, arrived at New York October 25. She was built at the Craig yard in Toledo, Ohio, and is the first of six steamers which the Atlantic Coast Steamship Company is going to put into service, principally for the lumber trade on the Atlantic coast. The Waccamaw is 258 feet long, with a beam of 40 feet and draft 18 feet 3 inches; is single decked, and arranged in general for carrying lumber. Her engines are triple-expansion, direct acting, vertical, with three cylinders arranged fore and aft of 20 inches, 33 inches and 54 inches diameter, and a stroke of 40 inches; crank, thrust and propeller shaft are of wrought iron. Her two boilers are round boilers, Scotch type, each 12 feet 4 inches in diameter by 11 feet 6 inches long, built for a working pressure of 170 pounds per square inch, and each fitted with two Morrison suspension corrugated furnaces 48 inches mean diameter. The tubes are cold-drawn seamless steel 3¼ inches in diameter. The Georgetown, a sister ship to the Waccamaw, was launched at Buffalo, N. Y., on October 27. The Atlantic Coast Steamship Co., which has a capital of $1,000,000, will carry North Carolina lumber from Georgetown to the northern seaboard cities as far as Boston, the principal office being in New York.—The New York Maritime Register.

A CURRENT DRIFT.

We have received the following communication:

PORT ROWAN, ONT., Oct. 24th, 1900.

MARINE RECORD, Cleveland.—The enclosed note I found about midway on Long Point, south shore, and per instructions I forward to you. Found on Tuesday, October 23rd. Cannot say how long it has been on the beach. It may be since September when we had such heavy weather here, and it may be only a short time. I am yours truly,

R. E. MATHEWS.

P. S. Was enclosed in a pint flask. R. E. M.

FRIDAY, AUGUST 31st, 1900.—Noon, wind N. N.W., gentle breeze and clear weather. Barometer 29.84. Thermometer .78. Position of ship at time this bottle was cast adrift, Fairport Harbor, bore by compass S. S.E. Distance fifteen miles. Finder of this note report same to THE MARINE RECORD, at Cleveland. Yours truly, ALTA.

Found on Tuesday, Oct. 23, 1900, midway on Long Point.

THE UNION DRY DOCK CHANGES HANDS.

Edward Gaskin and Lewis Warfield, supported by New York capitalists, have bought of the Erie Railroad Co., the plant of the Union Dry Dock, at Buffalo, and will continue the business under the name of the Union Steamship Co. The ground upon which the land is located has been leased for a term of years.

The investment will amount to more than $1,000,000. The formal transfer will take place as soon as the inventory of the property can be finished. Mr. Gaskin, who has been superintendent of the dock for several years, says that the new company will make a specialty of building first-class steel vessels for lake and ocean service.

Nov. 17 is the date set for the launching of the 400-footer now building in the yards, and as soon as she is in the water, work will be begun on a large steel steamer for the Lehigh Valley Railroad Co. Mr. Gaskin says that the American Ship Building Co., has nothing to do with the deal.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DIST.,
DETROIT, MICH., October 31, 1900.

Notice is hereby given that a red, gas buoy showing a fixed red light 10 seconds, eclipse 10 seconds, has been established to mark the east bank of the 20 foot channel, Lake St. Clair, Mich., abreast of the stern of the schooner barge Martha.

This buoy will be maintained only as long as the wreck of the Martha remains in the channel. The position of the Martha in the channel is such that the range line of the Isle aux Peches range lights passes over her stern, and in order that vessels may not be led on to this wreck by keeping on the range, the Isle aux Peches range lights will be discontinued after this day and until further notice.

By order of the Light-House Board:

J. C. WILSON, Commander, U. S. N.
Inspector 11th District.

As soon as possible after the close of navigation the Milwaukee Elevator Co. will have elevators A and E shut down for improvements which will cost $30,000. The engines will be replaced with machinery of greater power, and new and larger boilers substituted.

LETTERS AT DETROIT MARINE POST OFFICE.

November 3, 1900.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Anderson Carl E., str. Carlo
Bjorklund E. O., 2, str. Algeria
Carlson N. P., 2, str. Algeria
Chapman Milford, str. La Salle
Catchin J. P., str. Wilcox
Clooney Michael
Delaney Jas., str. Carlo
Dertsch J. W., str. Rensselaer
Emond Paul, str. Myles
Fleming Maurice
Griffiths J. H., str. Farwell
Hebbert Louis, str. A. P. Wright
Hoskin Jos. A.
Henning Wm., str. Volunteer
Ingles Robt., str. Vulcan
Jordan W M., str. Ira Owen
Johnson R. W.
Joneas James, str. Swain
Keishausen Konrad
King Chas., str. Unadilla
Larsen Edw., str. Escanaba
Lynch Owen
Loughlin Jas., str. Swain
Martin Nelson
McDonald Fred.
McFadgen J. L., str. Manhatta
Noble Andrew, str. Omaha
Ornstine Geo., 3, str. Sachem
Pease F. O., str. Presque Isle
Preston J. E., str. Brazil
Rapholz Jas. J., str. Jno. Owen
Smith N. B., str. Hennepin
Surles G. W., str. Granada
Smith R. F., str. Gates
Slutz E. J.
Stevens Oscar
Sloan Robt., str. Orion
Warwick Wm., str. M. E. Orton
Weeks Jno., str. Tasmania
Welch Geo.

F. B. DICKERSON, P. M.

FLOTSAM, JETSAM AND LAGAN.

The work of building the new rudder for the U. S. S. Michigan will take at least a week longer, and then the old craft will sail for Erie, where she is to rest for the winter. The new rudder is of a design not now common on the lakes and special patterns had to be made.

Alex. McLennan, of Colborne, was killed and John Cummings, of Port Hope, was badly injured at Kingston, Ont., while scraping the masts of the schooner Maria Annette. The rope, which supported the men, broke, and they were thrown to the deck. A third man escaped injury.

Hingston & Woods, owners of a scow which was sunk opposite Amhertsburg in 1897 by collision with the steamer Vulcan, brought suit in the United States district court at Utica, N. Y., to recover $8,000 damage to the machinery of the scow. Judge Coxe decided that there was no cause for action, but Shaw & Cady, attorneys for the Vulcan, have received notice of appeal.

The steam yacht Penelope, owned by Borden, has received an entire new rebuild from her water line down and is stronger and better than when she was first launched. The work was done in the Oades yards, at Detroit, and is one of the neatest jobs ever turned out. The Penelope is 76 feet long and 13 feet beam. She has been taken to St. Clair and housed for the winter at Mr. Borden's summer home.

J. C. Gilchrist, of Cleveland, will probably give names of the planets to the fleet of 5,000-ton steel steamers building for him at different lake yards. Of the eight new vessels, two will be owned by transportation companies already organized, and which control the Gilchrist wooden vessels. The other six will be owned by a new corporation, the Globe Transportation Company, and they will be named Mars, Saturn, Neptune, Uranus, Jupiter and Venus.

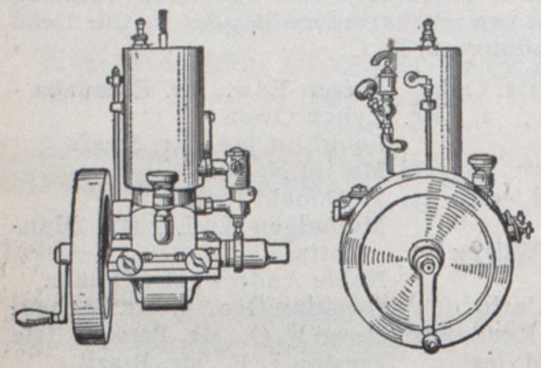
The two vessels, Loyalty and Liberty, which have been recently building at the West Superior ship yards, were launched Wednesday last. Both of the boats were launched without a hitch. The Liberty and Loyalty are sister boats and were built for the A. B. Wolvin fleet. They will go from the head of the lakes as soon as completed, and will engage in ocean freighting. From here they go direct to New York. The vessels are 265 feet in length and 40 feet beam.

The grain movement from the head of the lakes is as light as ever, no great demand being seen for tonnage. The same situation, almost, prevails at Chicago, although the outlook there is brighter for the vessel man than it has been, especially as it has to do with the movement after the 1st of November. On that date the new all-rail rates between Chicago and the seaboard will go into effect, which means that the all-rail rate will be about twice what is asked by the combination lake and rail. The effect can be none other than the enhancing of the lake business following the 1st of November.

Capt. James Davidson announces the completion of the new drydock at his shipyard, West Bay City, Mich. This drydock is 435 feet long, 60 feet wide at gate, 100 feet wide on top, and 14½ feet deep over sill. It embodies the very latest ideas in engineering skill, and is supplied with the improved machinery of all kinds for doing work quickly and economically. The pumps are being adjusted, the work of removing the cofferdam will be commenced in a few days, and the new dock will be ready for business November 1. The work of rebuilding and enlarging the Bay City dock will be commenced as soon as this dock is opened, so that by the opening of navigation next spring Capt. Davidson will have two dry-docks in operation.

Truscott

VAPOR MARINE MOTORS.
HIGH GRADE PLEASURE CRAFT.



TRUSCOTT BOAT MFG. CO.
ST. JOSEPH, MICH.

SEND 6 STAMPS FOR CATALOG.

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CHAS. R. DITTRICK,

SUBMARINE DIVER

Day or Night Calls Answered Promptly.

21 Everton Street, GLENVILLE, O.

THE Bliss LIQUID (Spirit) COMPASS

Made in seven sizes by JOHN BLISS & CO., 128 Front Street, New York, is finely finished sensitive, accurate and durable. Moves quickly and is extremely steady. Is the best Liquid Compass ever made in this or any country. For sale by ship chandlers generally.

NAVAL ARCHITECTURE AND MARINE ENGINEERING.

Ten new courses, seven in naval architecture and three in marine engineering, have been arranged by the engineering department of the University of Michigan, five of the courses being given each semester. The subjects taken up in the course in naval architecture are as follows: Ship calculations, strength of ships, stability of ships, resistance and propulsion of ships, design of ships, practical ship building.

The course in ship calculations is introductory in character. It includes a large number of subjects such as the following: Methods of laying off, and the various lines used in fairing a vessel; rules for determining plane areas bounded by curves, with proofs of the same; application to ship work; determination of volume of displacement, centers of buoyancy and metacentres; use of planimeter and intergrator; methods of plotting results of calculations; standardizing results; change of trim due to moving weights on board; change of trim due to flooding a compartment; determination of size of compartment that can be flooded with safety at any part of the vessel; experimental determination of centre at gravity; calculation of capacity of holds, bunkers, etc., and the effect on stability and trim due to cargoes of varying density; rules for tonnage and freeboard; launching calculations; steering and action of rudder.

Under the subject strength of ships, attention will be given to the application of curves and shearing forces and bending moments to ships; determination of curves of bouyancy, weight, shearing forces and bending moments for ships floating in still water, and in waves, upright and inclined, effect of taking into account wave pressures; tensile, compressive and shearing stresses in vessels; local stresses due to discontinuity of structure; stresses due to docking, transverse strength, effect of pitching and heaving; strength of riveted joints and relation of pitch and diameter of rivets and thickness of plate; types of vessels; classification; societies' rules.

The work in stability of ships will deal with the various kinds of equilibrium; initial stability; investigation of formulas for stability; stability curves; influence of type of vessel, freeboard, etc., on stability; cross curves of stability and methods of determining same effect of free water in the hold; stability in a damaged condition; dynamical stability; effect of wind pressure; surfaces of buoyancy and flotation considered geometrically; rolling of ships, resisted and unresisted, in still water and in waves; methods of reducing rolling.

The course treating of the resistance and propulsion of ships opens with a consideration of the early theories of this subject, then takes up the following topics: Wave making, eddy making, and surface friction resistance; stream line theory; Fronde's experiments; experiments with models; law of comparison of ship and model; effect of form and length upon resistance; progressive trial trips and data obtained; ratio of effective horse-power to indicated horse-power; coefficients of performance; results of trial trips applied to determination of indicated horse-power for a new vessel; waves created by ships; trochoidal theory of waves; propulsion by sails; centre of effort; wind pressure; power to carry sail; efficiency of propellers, jet, paddle, and screw; determination of size of propeller for a given ship; law of comparison of propellers.

The course in the design of ships deals with dimensions and form; effect of variation of dimensions on strength, stability, etc.; determination of dimensions to secure a certain speed, cargo capacity; method of obtaining the lines of a vessel; estimates and calculations of weights of hull and machinery; general arrangement of various types; structural arrangements; determination of indicated horse-power.

Practical shipbuilding includes arrangements of shipyards; methods of work; preparation of working plans, including midship section, framing, bulkheads, deck and inner-bottom plans, expansion of shell plating, casings, houses, etc.; ordering material from plans; pumping, piping and ventilation plans; classification; societies' rules.

The three courses in marine engineering comprise a discussion of type of engines and boilers; determination of sizes for a given set of conditions; arrangement of boilers; forced and natural draught and their effect on design; sizes and ratio of cylinders; stroke; piston speed; weight, and space occupied by machinery.

Four of the ten courses offered are drawing courses. These will include: Laying off and fairing a set of lines from given offsets; calculations of displacement, centres of buoyancy, etc., and ploting results; construction of capacity curves; calculation of change of trim and curves connected therewith; of launching; of strength and determination of curves of weight, buoyancy, shearing forces and bending moments; calculations of stresses; of curves of stability.

Later, the student will be asked to work out a design for a vessel to fulfill given conditions, as, for instance, a fast passenger or cargo steamer, cruiser, battleship, torpedo boat, or steam yacht, and will prepare the lines, general arrangement, midship section, and all calculation connected with them, and if time permit, a complete set of working plans together with an order form and specification.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co., New York, in their weekly report of the condition of the Eastern freight market, state as follows:

Under free offering of tonnage at gradually weakening figures, a heavy list of fixtures for grain has been perfected. The enquiry is evidently not yet exhausted, but charterers, in spite of the decline already established, continue pressing for still lower figures. The demand for Cork for orders has been very light, the overwhelming bulk of fixtures being of large carriers for picked ports, mainly for latter part of November and December loading, when large supplies of maize are expected to reach the seaboard, but some enquiry for January and even later loading has been filled as well. With all urgent demand for tonnage from cotton ports and for timber momentarily eliminated and shippers of coal to Europe withdrawing from the market, there is unfortunately, but little business to fall back on in default of grain. We can, therefore, only hope that, if the reports of large sales of coal, having previously been effected, be verified, charterers for this commodity will soon consider the level of our freight market sufficiently reduced to warrant liberal shipments on their part.

Sail tonnage continues scarce and rates in most directions remain firm. Case oil freights to the East, however, form an exception since, in consequence of the unexpectedly low charter of a steamer to Hong Kong, charterers have lowered rates for sailing vessels about 2 cents per case. Whether owners will submit to this decline remains to be seen, but the momentary effect has been to unsettle busines and to prevent further engagements.

"I THOUGHT it was about time for somebody to start a new magazine," remarked a famous American author, when he was told of the new monthly to be launched October 20, by Doubleday, Page & Co., of New York. The fact is, though, that the "World's Work," as its name indicates, is radically different from the ephemeral ventures so plentiful of late years. It is founded on an idea and one that must appeal to every man or woman who works, while the men behind it were for years editing and managing in various capacities several of the most successful magazines of the day. Now they are to see if they cannot make as good a magazine for themselves as they have helped in the past to make for other people. "The World's Work" is a first-hand magazine of human progress, dealing with the vital questions of contemporaneous interest in a thoughtful yet frank and incisive way. It considers conditions not theories, facts not fancies, believing that our own time and country are good to live in, and that "the best is yet to be." It is a necessary magazine for men who do things. It is illustrated by pictures larger than those usually published in our magazines. There will be clear-headed articles on topics of vital interest, by men who know what they write about. The editor is Mr. Walter H. Page, assisted by trained writers; no attempt will be made to obtain a famous list of contributors—the idea of the magazine well carried out is expected to win respect and interest. Besides many special articles there will be each month a history and explanation of significant happenings; and further, a department under the head of "Among the World's Workers," which will tell the busy man in concise fashion the new advances and tendencies in the various branches of business and professional endeavor.

TREASURY DECISIONS.

FOREIGN-BUILT, AMERICAN-OWNED YACHTS.

Regulations as to entries, clearances, payment of tonnage tax, light money, oaths as to ownership, etc.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION,
WASHINGTON, D. C., October 17, 1900.

Sir: This office is in receipt of your letter, dated the 15th instant, relating to the British-built yacht Lady Evelyn, and suggesting that regulations regarding such vessels be promulgated to insure uniformity of practice.

The vessel was purchased by an American citizen in 1892, is stated to have since remained the property of American citizens, having been purchased by David Dunlop, Jr., September 18, 1900, and does not belong to any regularly organized yacht club of a foreign nation.

1. Such vessels must be entered and cleared at each port in the United States under the laws governing the entries and clearances at the custom-house of vessels not of the United States.

2. On entry from a foreign port or place, such vessels must pay alien tonnage tax of 50 cents per ton.

3. On entry from a foreign port or place, vessels from which are not exempt from tax under presidential proclamation, such yachts must pay tonnage tax, in addition to alien tax, of 6 cents per ton or 3 cents per ton, as provided for by section 11 of the act of June 19, 1886, and act of February 5, 1897, according to the port or place from which the yacht is entered.

4. On entry from any foreign port, oath must be made before the collector of customs as prescribed by section 4226, revised statutes, or light money must be exacted.

5. Such vessels, although belonging to a regularly organized yacht club of a foreign nation extending privileges to yachts of the United States, do not have the privilege of "entering or leaving any port of the United States without entering or clearing at the custom-house thereof, or paying tonnage tax," if owned, chartered or used by a citizen of the United States, unless such ownership or charter was acquired prior to February 5, 1897.

6. Every such yacht, on her return to the United States from a foreign country, must make due entry at the custom-house of the port at which, on such return, she shall arrive.

Respectfully,
E. T. CHAMBERLAIN, Commissioner.

Collector of Customs, New York, N. Y.

GERMAN FLAG.

Exhibition of German flag and of flags of other nations in German harbors, etc.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION,
WASHINGTON, D. C., October 22, 1900

Sir: This office is officially advised as follows regarding the proclamation No. 210, by the German government, relative to the showing of the flag of the Empire of Germany, and of the national flag of other governments in certain cases, etc.:

In accordance with this proclamation, German ships are to show the flag of the empire (1) when meeting a ship carrying the German naval flag, (2) when passing a German fortress over which the German military flag flies if within 3 sea miles of the low-water mark, and (3) when entering a German harbor. Foreign ships are to show their national flags when meeting a German naval vessel or passing a German fortress if within 3-mile limit, and when entering a German harbor. German naval commanders are directed to see that these regulations are carried out, and if necessary to compel the national flag to be shown, and to prevent merchant ships from carrying the official flag or any pennant resembling that used by the imperial navy.

Respectfully, E. T. CHAMBERLAIN,
Commissioner.

COLLECTOR OF CUSTOMS, Boston, Mass.

HOME PORTS OF VESSELS.

Home ports of vessels must be specified in their marine documents.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION,
WASHINGTON, D. C., October 18, 1900.

Sir: Referring to P. E. No. 1, issued at your port September 15, 1900, in the case of the schooner J. D. Ingraham, this office has to state that your action in describing the vessel as "of Tisburry" in the enrollment was erroneous.

Edgartown should be specified as the vessel's home port, in accordance with the circular instructions from this bureau of December 21, 1896, and with the general regulations of 1899.

Please observe said regulations in all such cases arising in future in your district, so that the vessel's true home port, and not merely her port of hail, may be set forth in her marine documents, temporary as well as permanent.

Respectfully,
E. T. CHAMBERLAIN, Commissioner.

Collector of Customs, Edgartown, Mass.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 10TH DISTRICT,
BUFFALO, N. Y., October 29th, 1900.

The light in Maumee Strait Channel inner gas-buoy is not burning, and the apparatus is probably out of repair. The light will be restored as soon as repairs can be made.

By authority of the Light-House Board.

A. DUNLAP,
Commander, U. S. N.

Inspector 10th L. H. District.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MINNESOTA.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON D. C. October 29, 1900.

DULUTH RANGE LIGHT STATION.—Notice is hereby given that, on or about November 1, 1900, the following described temporary range lights and fog signal will be established on the new south pier at the entrance to Duluth Harbor from Lake Superior, to serve until permanent structures can be erected, next season:

Front Light.—A fixed red lens-lantern light, 35 feet above lake level on a pyramidal frame structure covered with tarred paper, on the outer end of the new south pier.

Immediately in rear of the structure is a frame fog-signal house, also covered with tarred paper, from which will be sounded, during thick or foggy weather, a 10-inch steam whistle having the same characteristic as the present signal, viz., blasts of 5 seconds duration separated by silent intervals of 30 seconds, thus:

Blast	Silent interval	Blast	Silent interval
5 sec.	30 sec.	5 sec.	30 sec.

Rear Light.—A fixed red lens-lantern light, 52 feet above lake level, on a white mast, near the inner end of the new south pier, 1,200 feet S. 66° 20′ W. (S. W. by W. 7/8 W.) in rear of the front light.

On the same date the present range lights and fog signal, on the old south pier, will be discontinued, to prepare for the removal of the old pier.

By order of the Light-House Board.

FRANCIS J. HIGGINSON,
Rear Admiral, U. S. Navy, Chairman.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DIST.,
DETROIT, MICH., October 29, 1900.

Information is hereby given that the position of the west end of the south pier, St. Mary's Falls canal, Mich., is now plainly marked by two red lights from the same vertical pole the upper an electric light 35 ft. above the level of the lake and the lower an oil light 15 ft. above the level of the lake. In case of any derangement with the upper (electric) light, its place will be taken by an oil light of the same characteristic.

The fixed white light now shown from the end of this pier and known as No. 267, St. Marys Falls Canal South Pier, in the List of Lights and Fog Signals on the Northern Lakes and Rivers, 1900, will be discontinued on and after November 1, 1900.

By order of the Light-House Board.

J. C. WILSON, Commander, U. S. N.
Inspector 11th Light-House District.

DOMINION OF CANADA—ONTARIO.

OUTER RANGE LIGHT AT KINGSVILLE TEMPORARILY DISCONTINUED.—In consequence of the temporary demolition of the outer end of the east breakwater pier at Kingsville, near the west end of Lake Erie, in connection with repairs now in progress, it was found necessary, on the 17th instant, to discontinue the exhibition of the fixed red light which formed the outer light of the range at that port. The fixed white light, on the top of the bank, is continued in operation, and the red light will be resumed as soon as the progress of repairs will admit, of which notice will be given.

WRECKS IN WEST END OF LAKE ERIE.—The following wrecks in the west end of Lake Erie have been located by the Chief Engineer of this Department:

1. Steamer Specular. This steamer laden with ore lies sunk east of Pelee Island in 34 feet water, with her masts and stem head showing above water.

From the wreck Pelee Island lighthouse bears N. 82° 30′ W. true, distant 4¾ miles, and the Dummy bears N. 24° 20′ E. true distant 3¼ miles. The following sextant angles indicate her position:

South tangent Pelee Island	0
Pelee Island lighthouse	55° 50′
Dummy crib	106 50

The lights maintained in the rigging were discontinued on the 9th instant, when the wreck was abandoned by the owners and underwriters.

2. Schooner Magnet. This vessel, laden with coal, lies in 35 feet water, with her masts showing.

From the wreck the north point of Middle Sister Island bears S. 58° 10′ W. true distant 2½ miles, and Colchester reef light-house bears N. 36° 30′ E. true distant 4½ miles. The lowing sextant angles indicate her position:

Colchester reef lighthouse	0
North tangent North Harbor Island	88° 0′
North tangent Middle Sister Island	113°40

Magnetic variation approximately 2° west.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

Department of Marine and Fisheries,
Ottawa, Canada, 13th October, 1900.

☞ All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

Pilots, masters or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notices of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada.

VOLUME I, number 1, of the "World's Work" to be issued monthly by the Doubleday, Page Co., 34 Union Square, New York, has just been received. There is every reason, judging from the contents of the initial number, that this excellent illustrated periodical should prove a most gratifying financial success to its publishers.

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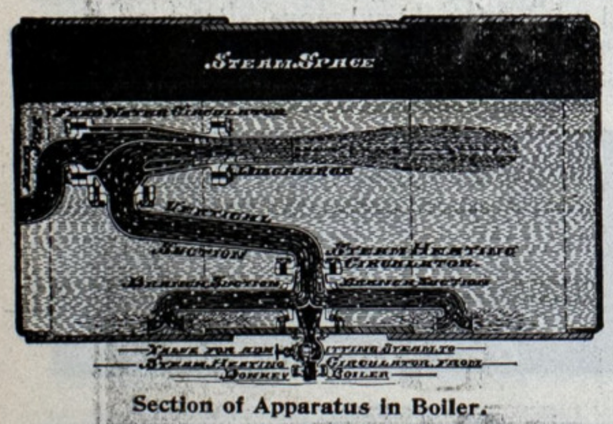

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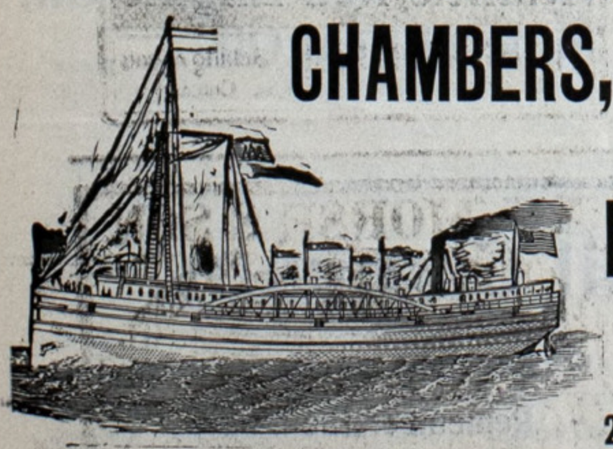

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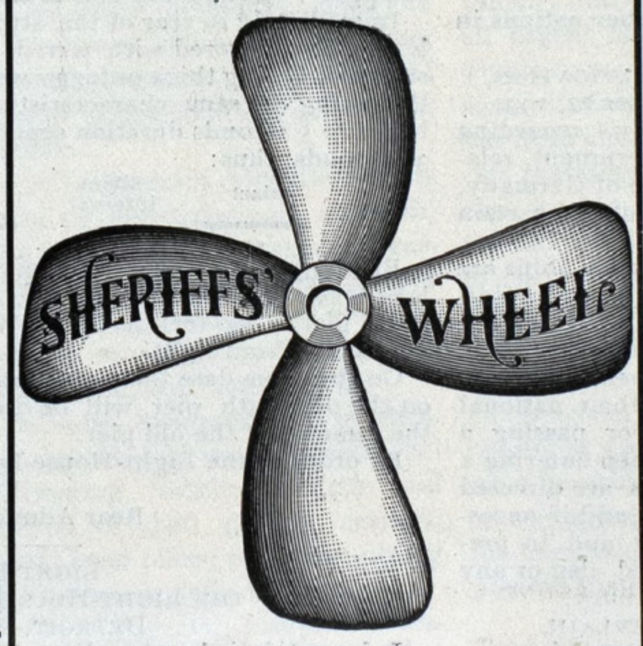

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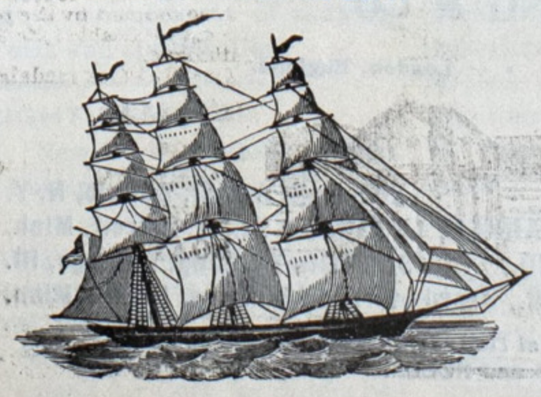

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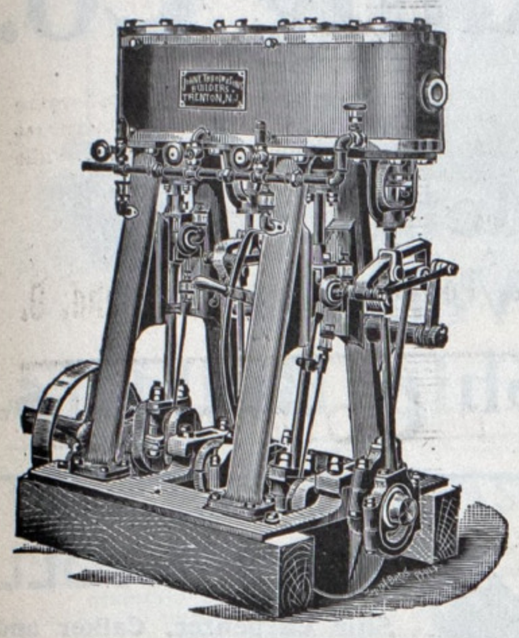

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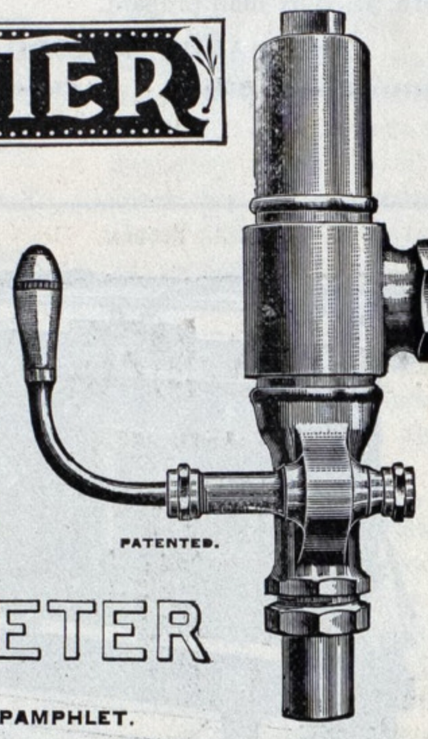

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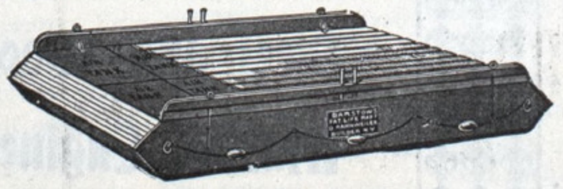

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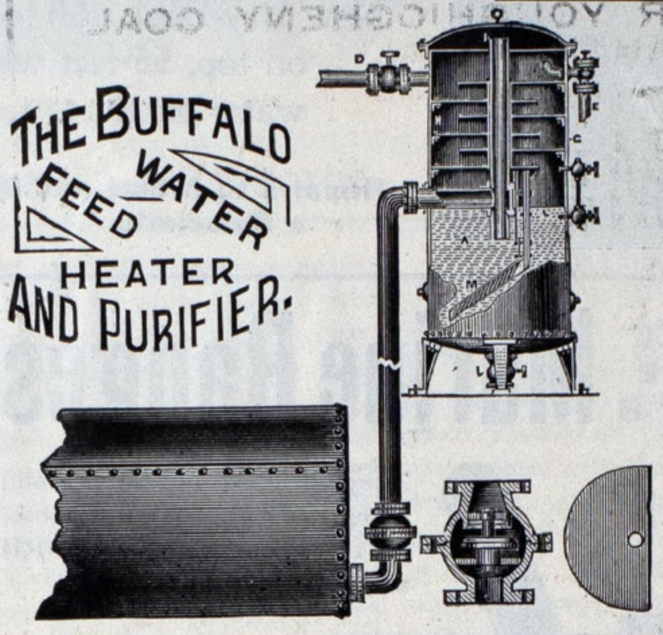

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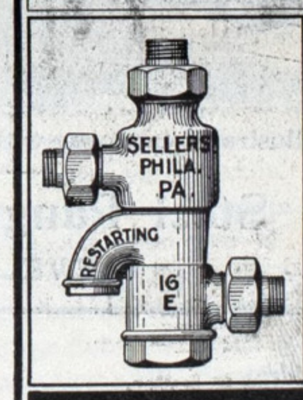

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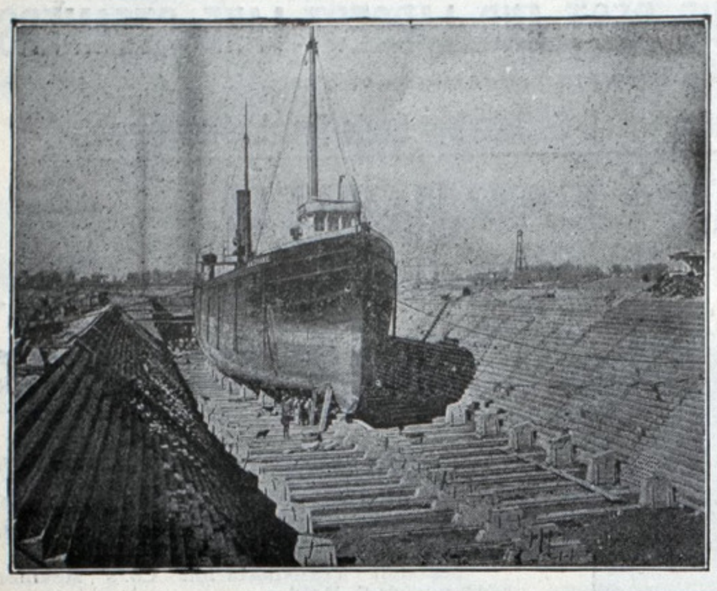

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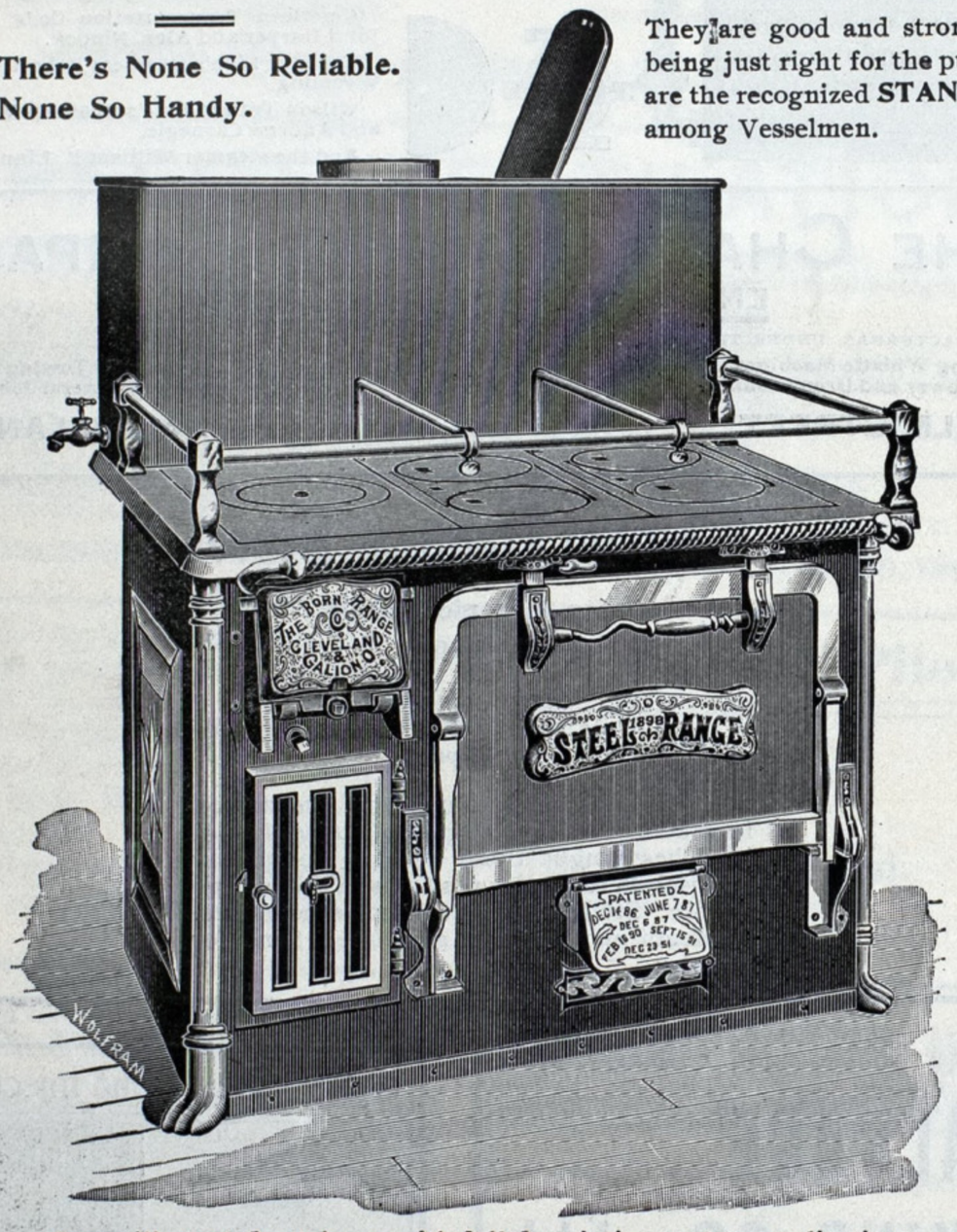

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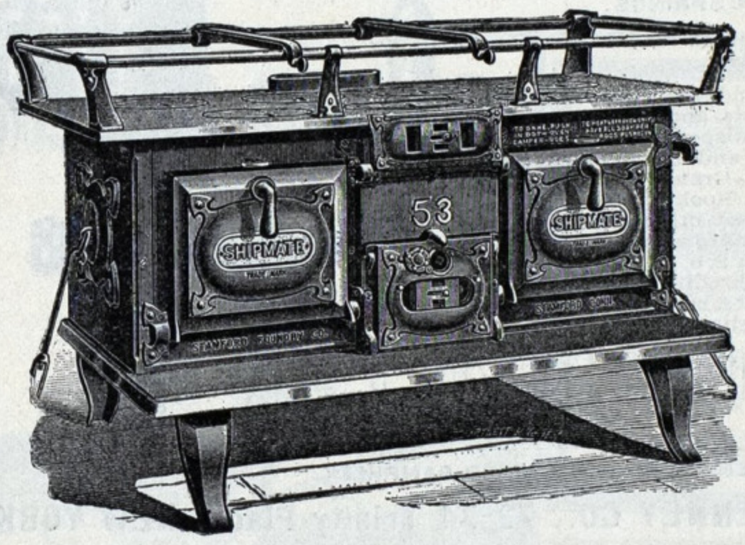

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